DECEMBER 1987

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FOREST INDUSTRIES

LOGGING/PULPWOOD/FORESTRY/LUMBER/PANELS

1988 EQUIPMENT CATALOG AND BUYERS' GUIDE

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1987 Volume 114 Number 12

DECEMBER

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U.S., Canadian forest industry results third quarter 1987 ($ millions)

Company	Sales	% change 1987/86	Earnings[1]	% change 1987/86
Abitibi-Price	C749,800	4.6	C33,000[2]	14.6
B.C. Forest Products	C356,000	37.8	C34,400	262.1
Boise Cascade	996,980	5.7	50,390	280.6
Canfor Corp.	C318,800	12.1	C31,100	148.8
Champion International	1,198,987	7.9	88,694	38.9
Crestbrook Forest Industries	C57,959	41.3	6,198	255.6
Crown Forest Industries	C272,200	23.0	C27,100[3]	105.3
Domtar Inc.	C651,000	11.3	C35,000[4]	-7.9
Donohue Inc.	C116,200	-6.4	C8,900	7.2
Federal Paper Board	237,674	7.1	21,124	112.9
Georgia-Pacific Corp.	2,424,000	27.0	118,000	21.7
Great Lakes Forest Prods.	C192,200	20.6	C26,200	197.7
Great Northern Nekoosa	664,600	29.2	55,700	61.0
International Paper Co.	2,000,000	66.7	102,000	12.1
Louisiana-Pacific Corp.	531,800	30.5	42,600	91.9
MacMillan Bloedel	C817,100	24.3	C82,700	160.9
Mead Corp.	1,110,500	32.6	97,400[5]	n.m.
Pope & Talbot	113,528	45.5	7,077	65.4
Potlatch Corp.	246,807	-1.3	22,604	35.1
Scott Paper	1,034,000	26.1	58,500	53.1
Stone Container	907,000	64.9	44,500	270.8
Temple-Inland	419,100	25.6	38,200	90.0
Union Camp	583,263	13.1	56,537	55.2
West Fraser Timber	C105,400	-4.5	C12,300	-12.8
Westvaco (7/31)	481,517	4.0	43,162	66.4
Weyerhaeuser	1,819,882	30.2	126,123	102.6
Willamette Industries	376,787	25.5	31,954	49.8

N.M. = not measurable. 1. Income after taxes, from continuing operations, excluding most significant nonrecurring items in both years. 2. 1986 earnings include C$2.3 million writedown charge. 3. 1986 quarter excludes C$10.3 million extraordinary charge for restructuring Crown Stores subsidiary. 4. 1986 quarter includes C$4 million gain from tax loss carry-forward. 5. 1987 quarter includes $42.8 million pretax gain from sale of six corrugated container plants and 50% interest in a linerboard mill.

Quarterly earnings soar; building products strong

SAN FRANCISCO, CALIF.—Strength in solid-wood segments as well as pulp and paper markets contributed to excellent third-quarter financial performance by most North American forest products corporations. Some quarterly earnings records were established.

Louisiana-Pacific Corp. set new records for sales and earnings in the third quarter. Chairman and president Harry A. Merlo noted sales through the first nine months of this year nearly equaled total 1986 sales. Markets for both pulp and building products were excellent in the third quarter, and all mills ran at or above capacity levels, Merlo reported.

Potlatch Corp.'s wood products group reported earnings of $10.9 million, 51% above third-quarter income last year of $7.2 million. CEO Richard B. Madden said strong lumber prices and improved operating efficiencies at the Minnesota waferboard plants more than offset lower lumber production resulting from closure for remodeling of the Lewiston, Idaho, sawmill.

Georgia-Pacific Corp. placed third-quarter operating profits from the building products segment at $156 million, an all-time record. Demand and prices for most building products continued strong during the quarter, fueled by continued healthy demand from the home improvement industry, noted chairman and CEO T. Marshall Hahn Jr.

Temple-Inland Inc. reported record earnings for the second quarter in a row. The building products group contributed $9.9 million, up 12.5% from third-quarter 1986 profits of $8.8 million. President and CEO Clifford J. Grum said strength in lumber and particleboard markets helped offset softness in gypsum and fiberboard.

Pope & Talbot Inc.'s wood products division inked its best earnings of any quarter since 1979, noted chairman and CEO Peter T. Pope. "Our two Canadian mills produced good earnings despite the negative effect on income of the much-discussed new tax this year on lumber shipped into the U.S."

Weyerhaeuser Co. earnings in the third quarter more than doubled over the comparable period in 1986. President George H. Weyerhaeuser acknowledged the contribution of strong demand and higher prices for export logs and lumber, resulting from a boom in new housing and other construction in Japan.

Boise Cascade Corp. net income for the quarter galloped to a level 280% above third-quarter 1986, but income from building products was down, with lower plywood prices blamed. For the full nine months, earnings of the building products segment were up.

Union Camp Corp.'s third-quarter earnings were a record for any quarter, 54% above the same quarter in 1986. ■

MB tables big project; veneer mill in production

VANCOUVER, B.C.—The major item in the mill construction file this month is a negative one. MacMillan Bloedel Ltd. announced in early November the indefinite postponement of a C$115-million capital spending program embracing sawmill improvements.

The stock market collapse in late October was cited as the reason for the postponement. A spokeswoman indicated the company would evaluate effects of the market upheaval on the economy before making such an investment.

On the plus side:

- Production has begun at Weyerhaeuser Co.'s new export veneer mill in Aberdeen, Wash., in which the Bank of Tokyo owns a 10% interest. The $14-million mill is producing 3 by 6-ft sheets for the Japanese market.
- Trus Joist Corp. will produce wood-frame windows in a plant set to open next year in vacant industrial space in Twin Falls, Idaho. Investment could be as much as $9 million.
- Bohemia Inc. will build a $4.7-million laminated beam plant in Vaughn, Ore. Its capacity of 100,000 bd ft/day is about half that of Bohemia's glulam plant in Saginaw, Ore., now operating at max output. ■

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PUBLISHING / SALES HEADQUARTERS
SAN FRANCISCO, CALIFORNIA 94105
500 Howard St., (415) 397-1881
Telex: 278273 Cable: Miltreepub
Leigh M. Freeman, Publishing Director
Leonard E. Haas, Group Publisher
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REGIONAL SALES OFFICES

SAN FRANCISCO, CALIFORNIA 94105
500 Howard St.
(415) 397-1881
Telex: 278273 Fax: 415-543-0256
William Little, Western Sales Manager
Jan Curcio, Sales Assistant

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35 E. Wacker Dr., (312) 372-6238
Bernice Bethel, Sales Assistant

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2700 Cumberland Parkway, N.W. Suite 530
(404) 432-3186
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LONDON, ENGLAND
Lansdowne Media Services Ltd.
Lansdowne House, 12 Church St.
Rickmansworth, Hertfordshire, UK WD3 1BS
Telephone: 0923-777711
Telex: 28764 LMS LTD G
Fax: 44-9-23721103
David M. Lansdowne
Christina Burrows, Sales Assistant

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BWB Media Services
198 Avenue Winston Churchill, Bolte 4
Telephone: 347-31-35
Telex: 63546 BWB B Fax: 32-2-3473206
Brian W. Bussey

B-1000 BRUSSELS, BELGIUM
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Rue J. Lebeau, 27
Telephone: 513-06-47 513-17-32
Telex: 62775 BBA Fax: 32-2-5141738
Baudry C. Boisseau

D-4630 BOCHUM 6, FED. REP. GERMANY
Postfach 600 264
Telephone: 2327-88609 Telex: 820468 EDH
Ernst Dieter Hartmann

TOKYO, JAPAN
Orient Echo Inc.
1101 Grand Maison Shimomiyabi-cho 8
Shinjuku-ku, Tokyo 162, Japan
Telephone: (03) 235-5961 Telex: J33376
Masahiko Yoshikawa

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Plant combines LVL, OSB to make dimension

1988 Volume 115 Number 1

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The export tax on softwood lumber entering the U.S. has not yet had much effect on Canadian producers. But it will have a major impact in '88 as consumption falls

Canadian producers braced for rough ride ahead

By Bob Westergaard

Vancouver, British Columbia

THE YEAR 1987 can best be characterized as the year that Canadian sawmillers expended almost as much energy fighting with provincial, federal and U.S. governments as they expended in producing lumber.

The eventful year was highlighted by the imposition of a 15% export tax on Canadian softwood lumber entering into the U.S., in lieu of a threatened 15% countervailing duty.

Since the imposition of the export tax on Jan. 6, 1987, Canadian producers have been coping with the hastily initiated agreement which has caused serious inequities. Compounding this development, sawmilling companies in B.C. and Quebec have seen radical changes to their stumpage system and major cost increases for the raw materials.

These changes to the basic economics of producing lumber for the U.S. market—Canada's largest—have raised the question of just how well Canadian companies will fare in the long term.

Overall, Canadian lumber companies were not significantly affected in 1987 by the export tax, due to relatively high 1987 U.S. housing starts, record Canadian housing starts, and high overall U.S. lumber consumption.

Strong domestic North American lumber markets were outpaced by export markets. Canadian shippers exported record volumes in 1987. As a result, prices remained stable for the first nine months of 1986, and profits reached record levels for many companies.

Although 1987 amply demonstrated the export tax does not have a major effect during periods of strong demand, the effect during periods of poor consumption has not yet been tested.

This article, which has been condensed from the report *Canada's Forest Industries: Markets 1988-92*, written by Widman Management Ltd., a Vancouver-based forest products marketing and consulting company, outlines highlights of 1987 and provides an analysis of the key events that will affect the industry in the next few years.

As a background to this analysis, it is worthwhile to look at 1987 lumber production by province, along with an analysis of where this lumber was marketed.

As Table 1 indicates, an estimated 25.6 billion bd ft of lumber was produced in Canada, a record year. Particularly large gains on the B.C. coast were due to strong offshore markets, while an estimated 1.7 billion bd ft increase in the B.C. interior has largely been due to favorable price levels, incremental mill expansions and the lack of labor disruptions in 1987.

An additional 200 million bd ft was produced over 1986 levels in Alberta, Saskatchewan and Manitoba, while marginal gains were made in Quebec and in the eastern Maritime provinces.

The only region to post a drop in production from 1986 levels is Ontario, where producers have felt increased competitive pressures primarily from eastern Canada and U.S. mills.

An analysis of where this lumber was marketed indicates why these production levels were achieved. As Table 2 indicates, an estimated 2.7 billion bd ft more lumber was produced in 1987 than in 1986; however, shipments to the U.S. actually dropped slightly during the year. The difference was made up by an almost 50% increase in offshore exports and strong Canadian consumption.

Although there are no definitive figures on overall Canadian consumption published by Statistics Canada, Canadian consumption figures are calculated by adding Canadian production and Canadian imports and subtracting exports to the U.S. and offshore markets. For the purposes of this analysis, the effect of inventories is ignored.

Since 1980, the Canadian lumber industry has consistently exported 2.4 to 2.5 billion bd ft/year. Although 1986 was a strong year for exports, a 4½-month strike in B.C.—which typically accounts for 85 to 95% of the country's non-U.S. exports—forced offshore ship-

TABLE 1—Canadian softwood lumber production by region (millions of bd ft)

Year	B.C. coast	B.C. interior	B.C. total	ASM[1]	Ont.	Que.	East[2]	Sub-total	Total Canada
1980	4,252	7,726	11,978	994	1,639	3,120	723	6,476	18,454
1981	3,458	6,965	10,423	1,084	1,575	2,979	575	6,213	16,636
1982	3,002	6,943	9,945	1,033	1,637	2,762	455	5,887	15,832
1983	4,139	8,903	13,042	1,153	1,673	3,534	590	6,950	19,992
1984	3,903	9,174	13,077	1,456	1,841	3,553	661	7,511	20,588
1985	3,996	10,007	14,002	1,471	2,014	4,039	820	8,343	22,345
1986	3,753	9,582	13,335	1,591	2,195	4,916	913	9,617	22,952
1987[3]	4,679	11,284	15,963	1,750	2,000	5,016	922	9,688	25,651

[1] ASM is Alberta, Saskatchewan and Manitoba. [2] East is New Brunswick, Nova Scotia, Newfoundland and P.E.I. [3] Estimate.
SOURCE: Statistics Canada/COFI.

ments down to 2.06 billion bd ft.

However, in 1987 offshore exports were up an estimated 50+% from the previous year's figure, with particularly large increases recorded in the major markets of United Kingdom and Japan. The Middle East and North African markets have accounted for approximately 300 million bd ft since 1980, but have fallen off sharply in 1985 and 1986. In 1987 these markets began to rebound and posted a 56% increase over the previous year. In addition, the European market was particularly strong.

Thus, while Canadian shipments to the U.S. dropped slightly after the introduction of the export tax, this decrease was not necessarily due to the export tax. Rather, a diversion of production to the strong Canadian domestic market and a high demand for export markets were the causes of this decline.

The export tax did have some effect in 1987, with marginal capacity coming off the market in Ontario, and a resultant serious financial burden on eastern Canadian reload centers and the western Canadian remanufacturing industries. The hardship was not caused so much by the export tax itself, but rather it was due to the lack of consultation between government and industry.

This resulted in a situation whereby 20 companies in Canada were granted exemptions from the export tax on the basis that they utilize timber from private lands or purchase their raw material on the open market, and therefore do not benefit from "low stumpage rates."

Thus, two similar plants operating side-by-side could be competing inequitably because one plant may have an exemption whereas the other does not.

Although over 50 companies were certified by the Canadian government that they do not receive a benefit from low stumpage or do not receive subsidies through federal or provincial government programs in excess of .5% of their operating income, only 20 companies were granted exemptions. The federal government was ineffective in notifying industry of the application deadline; many manufacturers learned about the availability of exemptions only after the agreement was announced.

Another major difficulty for remanufacturers is caused by "Appendix B" of the Canadian/U.S. softwood lumber agreement. This appendix, which contains a list of remanufactured products that are taxed based upon their raw material price, does not include all products remanufactured in Canada.

Thus, if a company purchases cedar blanks and remanufactures them into bevel siding (which is included in Appendix B), the company would pay a 15% export tax based on the raw material price as purchased from a primary producer. However, in the case of products which are not on the Appendix B list—such as SPF remanufactured products or pallets—companies must pay a 15% export tax based upon the end selling price of their product.

Appendix B limitations have been responsible for large-scale layoffs at many manufacturing plants and have caused considerable financial hardship for many other companies.

Another group that has been badly hurt has been Canadian wholesalers and reload operations that handle stock from companies such as Fraser and Irving—who have been granted exemptions from the export tax.

One example is Princeton Lumber Wholesalers, a Paris, Ont., company. With the imposition of the export tax, Princeton Lumber Wholesalers has become the "exporter of record" on the customs documents and is subject to the 15% export tax, even though it handles exempted lumber.

As Princeton could not charge supplying mills for the 15% export tax, its only alternative was to lay off employees in its Canadian yards and ship the lumber directly from the mills to the U.S. yards where it was unloaded by American workers and trucked by U.S. firms.

The export tax also has had a substantial impact on other groups it was designed not to hit, such as the U.S. cedar fencing manufacturers. Many U.S. fencing manufacturers had originally aligned themselves with the Coalition for Fair Lumber Imports in 1982, but did not join in the lumber lobby when it filed its complaint in May 1986.

Because of this, negotiations between the U.S. and Canada did not include fencing, and fencing materials still enter into the U.S. on a tax-free basis. However, rough unprocessed cedar, which forms the major raw material base for many Pacific Northwest fencing manufacturers, still enters the U.S. with a 15% tax. This has created a situation whereby Canadian fencing manufacturers can sell their products in the U.S. without a handicap of a tax, while U.S. fencing manufacturers must absorb a 15% export tax on their raw material.

Stumpage levels add to impact

One key aspect of the U.S./Canadian softwood trade agreement is the provision for the provinces to increase stumpage rates as a replacement measure for the export tax.

Both Quebec and B.C. have increased their stumpage levels and, at the time of this article preparation, have entered into discussion with U.S. government over elimination of the export tax. In addition, the Maritime lumber producers are "within close reach" of eliminating the export tax for this group, reports the Maritime Lumber Bureau.

However, the governments of Ontario, Prairie provinces and Alberta have not made efforts to increase their stumpage and currently plan to continue with the existing export tax agreement. If the B.C., Quebec and Maritime governments are successful in eliminating the tax, an administrative nightmare may well emerge, particularly for Maritime and B.C. lumber moved through eastern Canadian reloads.

For the most part, the major changes in the B.C. stumpage system have not been well received by industry. According to B.C. Ministry of Forests data,

TABLE 2—Consumption of Canadian lumber, 1987-88 (millions bd ft)

	1986		1987*	
Production	22,952		25,651	
Consumption:				
Canada		7,138		8,882
U.S.		14,115		14,111
Offshore		2,059		3,109
Canadian imports	360		451	
Total production plus imports	23,312		26,102	
Total consumption		23,312		26,102
Net	0		0	

** Estimate.*

stumpage levels before the major increase have averaged 6.2% of annual sales of C$9.36 billion, which has raised C$580 million in direct stumpage revenue for the province. According to Forest Minister Dave Parker, the new measures will increase the stumpage levels to 7.3% of the companies' sales values and produce an estimated C$680 million in revenue—C$574 of which will be raised directly from stumpage.

In addition to the major stumpage increases which were introduced on Oct. 1, 1987, Section 88 of the B.C. Forest Act has been completely eliminated. This section allowed companies to apply for stumpage credits for road building and silviculture on public land. Thus, the industry is faced not only with a major increase in stumpage charges, but is now completely financially responsible for the development of all roads and silviculture costs on public lands.

According to the Ministry of Forests, average stumpage will rise from C$4.41/m³ to C$10.59/m³ on the coast and from C$1.31/m³ to C$8.59/m³ in the interior. However, these increases have not been implemented evenly among companies. The new comparative value system penalizes mills that are very close to their timber, and those that are harvesting higher quality stands. In some cases, producers found themselves facing a stumpage bill as much as 800% greater than under the previous system.

Industry reaction to the new stumpage system was immediate, and many companies, most notably Westar Timber, operating in northwestern B.C., immediately closed their logging operations. Although Westar has since restarted its harvesting, many other companies in the interior have subsequently closed their logging operations in protest of the stumpage cost.

The major increases in stumpage have been further aggravated by the fact that companies are, at the time of this writing, still paying the export tax in addition to their higher stumpage charges. Although a rebate system has been put into place which would allow companies to regain their export tax credits, the lengthy time period in obtaining rebates is causing serious cash flow problems, particularly for medium and smaller companies.

Like previous export tax legislation, this rebate system has victimized the remanufacturing industry, as only primary producers are entitled to receive the rebate. In the case of a Canadian primary producer selling to a remanufacturer—who may ship a portion of its product into the U.S.—a credit system between the remanufacturing industries and primary producers has been arranged. The remanufacturers must then seek export tax credits from the primary suppliers, and when they export their production to the U.S., they pay the export tax on their value-added price. Following this, they are then able to sell the tax credits back to their primary suppliers.

Although 1987 proved the export tax does not have a major effect during periods of strong demand, its effect during periods of poor consumption has not yet been tested

As an example, if a remanufacturer purchases lumber at a $200 U.S. price plus 15% tax, he receives a tax credit of $30 and, after selling his remanufactured product, he then requests from the mill his $30 credit for cash.

However, many primary producers do not exchange the full value of the tax credits because of the difficulties they have in getting their own rebates from the government. Remanufacturers have been caught in the bind between primary producers and the government.

Outlook for 1988

As mentioned earlier, the export tax on softwood lumber entering into the U.S. has not had a major effect on Canadian lumber producers. However, in 1988 it should begin to have a major impact as consumption declines.

In 1988, we foresee a significant drop in housing starts in both Canada and the U.S. We expect housing starts in the U.S. to fall from an estimated 1987 level of 1.63 million to 1.45 million in 1988, whereas Canadian starts should drop from 204,000 to 180,000 in 1988.

Helping to offset these declines should be continued growth and an increase in export markets. However, strong exports alone will not save Canada's lumber industry. Based upon 1987 annualized figures, Canada exported 3.1 billion bd ft offshore, or 12.1% of its annual production of 25.6 billion bd ft. By contrast, the U.S. accounted for 14.1 billion bd ft, or 4.5 times the volume moved into offshore markets.

Provinces' forecasts vary

With a drop in U.S. consumption and the new higher cost structures of the B.C. and Quebec lumber industries, we believe many producers will be facing production curtailments in 1988.

Within B.C., coastal producers should do relatively well, as they are largely dependent upon overseas markets. However, with the dramatic interior stumpage increases, these mills are no longer low-cost producers; this, combined with their distance to key U.S. markets, will have an impact in 1988.

In Alberta, the 15% export tax will continue. However, these producers have not been hit by the severe increases in stumpage. Because of low delivered raw material cost, manufacturers will enjoy a minimum of a C$20/thousand bd ft price advantage over B.C. producers in Canadian markets. Because of favorable transportation rates into U.S. markets, they should enjoy high operating rates and reasonable profits.

The Ontario lumber industry has begun to feel new competition from U.S. southern yellow pine producers, as well as from mills in the eastern Washington/Idaho/Montana area. This, combined with an anticipated drop in Canadian housing starts, may force Ontario production levels down from '87 levels.

As for Quebec stumpage, the outcome of negotiations with the U.S. is not yet clear; however, it is believed that the Quebec government is not pressing for total elimination of the export tax, but rather an export tax reduction in favor of minor stumpage increases. Because manufacturers have in the past two years changed largely from a random-length dimension production to a production base of studs, the predicted decline in U.S. demand may force stud prices down. However, Quebec's pulp and paper industry, with its demand for wood chips, has helped offset the lack of profitability in its major product line.

In the Maritimes, producers may soon enjoy the benefit of receiving export tax exemptions, according to the Maritime Lumber Bureau. Of the 21 producers in this association's membership, five companies received exclusions before the tax was imposed and the other 16 companies were able to market production in local markets and in the healthy Toronto and Montreal markets.

If the export tax for the Maritime mills is eliminated, producing companies should fare well in 1988. ■

THE AUTHOR is a consultant with Widman Management Ltd., a Vancouver, B.C.-based consulting firm.

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PUBLISHING / SALES HEADQUARTERS
SAN FRANCISCO, CALIFORNIA 94105
500 Howard St., (415) 397-1881
Telex: 278273 Cable: Mkfreepub
Leigh M. Freeman, Publishing Director
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REGIONAL SALES OFFICES

SAN FRANCISCO, CALIFORNIA 94105
500 Howard St.
(415) 397-1881
Telex: 278273 Fax: 415-543-0256
William Little, Western Sales Manager
Jan Curcio, Sales Assistant

CHICAGO, ILLINOIS 60601
35 E. Wacker Dr., (312) 372-6239
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(404) 432-3196
Jay E. Schlosser, Southern Sales Manager
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LONDON, ENGLAND
Lansdowne Media Services Ltd.
Lansdowne House, 12 Church St.
Rickmansworth, Hertfordshire, UK WD3 1BS
Telephone: 0923-777711
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David M. Lansdowne
Christine Burrows, Sales Assistant

B-1180 BRUSSELS, BELGIUM
BWB Media Services
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B-1000 BRUSSELS, BELGIUM
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D-4630 BOCHUM 6, FED. REP. GERMANY
Postfach 600 264
Telephone: 2327-88909 Telex: 820468 EDH
Ernst Dieter Hartmann

TOKYO, JAPAN
Orient Echo Inc.
1101 Grand Maison Shimomiyabi-cho 9
Shinjuku-ku, Tokyo 162, Japan
Telephone: (03) 235-5961 Telex: J33378
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FOREST INDUSTRIES

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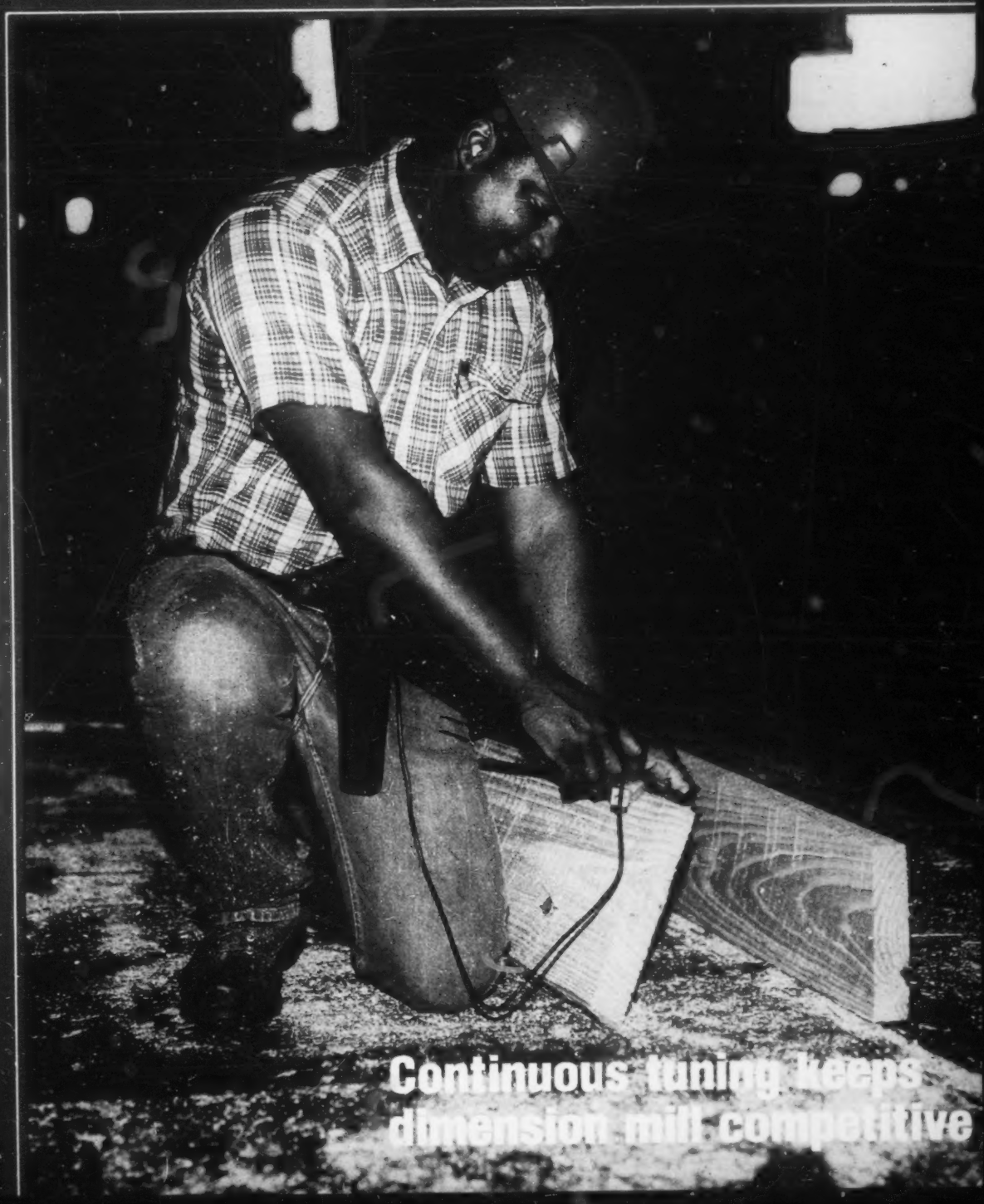

Continuous tuning keeps dimension mill competitive

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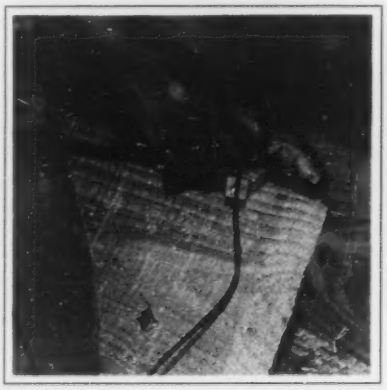

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Make these changes on your dance card

SAN FRANCISCO, CALIF.—Two corporate name changes resulting from shifts in ownership should be inked into the record:

• The former Georgia Kraft sawmill in Rome, Ga., is now part of Inland-Rome, a subsidiary of Inland Container Corp., headquartered in Indianapolis, Ind. Inland and The Mead Corp. were former partners in Georgia Kraft, some assets of which were sold off last year.

• Proboard Ltd. is the new name of the former Pluswood Mfg. Ltd. particleboard plant in Atikokan, Ont. The new company name reflects sale of Pluswood Inc.'s United States business, according to president Franz L. Boschwitz. Thomas L. Plouffe, formerly with Grant Waferboard, has been named plant manager at Atikokan. ■

New, remodeled mills on capital project list

PRENTICE, WIS.—John A. Biewer Lumber Co., based in St. Clair, Mich., will build a $15-million sawmill and treating plant in Prentice this year.

Construction was scheduled to commence upon completion of financing arrangements, with completion scheduled for November. The sawmill will cost $12.5 million and the treating plant $2.5 million.

Other projects:

• Georgia-Pacific Corp. has completed an expansion project at its medium-density fiberboard plant at Holly Hill, S.C., bringing capacity to 300 tpd. Key elements are an L-46 Defibrator and a Motala six-opening, 8 by 25-ft press supplied by Sunds Defibrator. A chip hopper and screw conveyor for the Defibrator, and press loader and unloader were also part of the Sunds installation. The press conversion, which involved removal of the old press line, was completed in less than two months.

• Crown Forest Industries Ltd. is remodeling its sawmill at Armstrong, B.C. The C$14.5-million project will increase recovery, improve productivity and allow the mill to produce higher-value lumber products for offshore and North American markets.

• WTD Industries Inc. will modernize its wholly owned Graham Plywood Co. plant near Tacoma, Wash., the former North Pacific Plywood Inc. facility purchased last year. Financing will include $3 million from state of Washington industrial revenue bonds.

In connection with reconstruction of its Crater Lake Lumber Co. sawmill near Chemult, Ore., destroyed by fire last November, WTD will construct a 2.5-mW cogeneration plant. The cogen plant will be financed by a $3.75-million package arranged through the state of Oregon. ■

U.S., Canadian forest industry results, fourth quarter, full year 1987 ($ millions)

Company	Fourth quarter Sales	% chg	Erngs[1]	% chg	Full year 1987 Sales	% chg	Erngs[1]	% chg
Abitibi-Price	C786.1	12.6	C34.6	20.1	C2,988.0	8.1	C125.7	17.2
Boise Cascade	975.7	2.5	57.2	79.0	3,820.8	2.2	183.0	80.2
B.C. Forest Prod	C364.4	46.4	C40.7	589.8	C1,400.0	27.3	C140.2	248.8
Champion Int'l[2]	1,157.5	9.4	82.1	27.3	4,614.7	5.2	293.3	46.1
Chesapeake	165.8	10.6	15.2	114.3	675.7	12.7	30.2	119.5
Consol'd-Bathurst	C597.0	13.5	C83.6	107.8	C2,261.0	12.0	C214.4	334.0
Crown Forest[3]	C279.0	53.9	C34.4	304.7	C1,029.9	19.2	C100.7	162.9
Domtar	C656.0	8.4	C38.0	(2.6)	C2,568.0	10.4	C161.0	11.0
Federal Paper Bd[4]	317.3	3.3	25.1	n.m.	1,025.7	8.1	65.8	257.2
Georgia-Pacific[5]	2,229.0	25.2	112.0	34.9	8,603.0	19.1	456.0	54.7
Gt Lakes FP	C193.7	12.7	C29.9	85.5	C752.2	18.0	C96.2	220.1
Gt Nor Nekoosa[6]	782.6	46.3	56.7	52.8	2,589.0	27.0	200.6	88.3
Int'l Paper[7]	2,000.0	5.3	125.0	10.6	7,800.0	41.8	407.0	33.4
Louisiana-Pacific[8]	478.1	25.1	31.3	(77.6)	1,921.6	27.6	125.0	(33.2)
Pope & Talbot	106.8	30.3	7.2	(14.9)	426.9	37.6	28.1	77.9
Potlatch	252.7	3.9	24.9	23.8	992.1	1.6	87.6	25.3
Scott Paper	1,101.2	11.6	67.5	27.6	4,122.0	19.9	233.8	25.4
Temple-Inland[9]	397.9	11.8	33.7	21.2	1,602.7	23.7	141.4	75.0
Union Camp[10]	609.8	14.0	58.9	31.0	2,307.6	12.8	207.5	57.1
Westvaco (10/31)[11]	520.1	4.7	59.2	37.0	1,903.6	5.1	146.2	35.2
Weyerhaeuser	1,783.5	22.9	129.4	34.7	6,989.8	23.6	446.6	61.4
Willamette Ind	379.5	19.4	38.7	46.3	1,431.6	19.3	121.3	63.5

1. Income after taxes, from continuing operations, excluding most significant non-recurring items. 2. 1987 earnings exclude $88.7-million net gain from sale of investments in Stone Container Corp. and U.S. Plywood Corp. 3. Percentages based on 1986 earnings before extraordinary items. 4. 1987 earnings include $8.2-million after-tax charge for debt retirement. Year-earlier net for quarter and year includes $15.1-million charge for debt retirement. 5. 1987 earnings include $66-million pretax gain from sale of investments in Georgia-Gulf Corp.; 1986 earnings include a $33-million pretax gain for the same reason. 6. 1986 earnings exclude net charge of $21.2 million from restructuring. 7. 1986 earnings for quarter and year include pretax gains of $73 million, partly offset by $31-million pretax charge for relocation and plant closing expenses. 8. Year-ago net for quarter and year includes $123.0-million pretax credit from reversal of income taxes. 9. Net income includes gains in 1987 on property and equipment of $4.1 million in the year and $1.4 million in the quarter, and $4.5 million in the 1986 year. 10. 1986 year and quarter exclude $5.1-million net gain on sale of a facility and $3.0 million net charge from repurchase of debt. 11. 1987 year and quarter net includes $12.4-million credit from sale of timberlands. n.m. = Not meaningful.

Wood exports soar, further gains seen

WASHINGTON, D.C.—While totals for the year have not been compiled, indications are that the value of wood products exported from the United States in 1987 will reach a record level.

The figure is estimated by National Forest Products Assn. at $3.8 billion, exceeding the previous record of $3.67 billion set in 1980. Exports in 1987 should exceed the previous year by 30%, and NFPA projects an additional 15% increase in 1988.

The reduced value of the U.S. dollar and more aggressive export marketing programs by individual companies and trade associations were regarded as the major forces behind the increase in 1987.

Japan accounts for about 50% of U.S. wood exports. Purchases in 1987 will total about $1.9 billion, according to NFPA, a 50% jump from 1986. Canada is a distant second, followed by South Korea, China and West Germany.

By volume, softwood lumber exports rose 27.1%, softwood plywood 37.6%, hardwood lumber 46.2% and particleboard 39.5%. ■

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PUBLISHING / SALES HEADQUARTERS
SAN FRANCISCO, CALIFORNIA 94105
500 Howard St., (415) 397-1881
Telex: 278273 Cable: Millreepub
Leigh M. Freeman, Publishing Director
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LONDON, ENGLAND
Lansdowne Media Services Ltd.
Landsdowne House, 12 Church St.
Rickmansworth, Hertfordshire, UK WD3 1BS
Telephone: 0923-777711
Telex: 28764 LMS LTD G
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Christina Burrows, Sales Assistant

B-1180 BRUSSELS, BELGIUM
BWB Media Services
198 Avenue Winston Churchill, Boîte 4
Telephone: 347-31-35
Telex: 63546 BWB B Fax: 32-2-3473206
Brian W. Bussey

B-1000 BRUSSELS, BELGIUM
Baudry Boisseau Associates
Rue J. Lebeau, 27
Telephone: 513-06-47 513-17-32
Telex: 62775 BBA Fax: 32-2-5141738
Baudry C. Boisseau

D-4630 BOCHUM 6, FED. REP. GERMANY
Postfach 600 264
Telephone: 2327-88609 Telex: 820468 EDH
Ernst Dieter Hartmann

TOKYO, JAPAN
Orient Echo Inc.
1101 Grand Maison Shimomiyabi-cho 8
Shinjuku-ku, Tokyo 162, Japan
Telephone: (03) 235-5961 Telex: J33376
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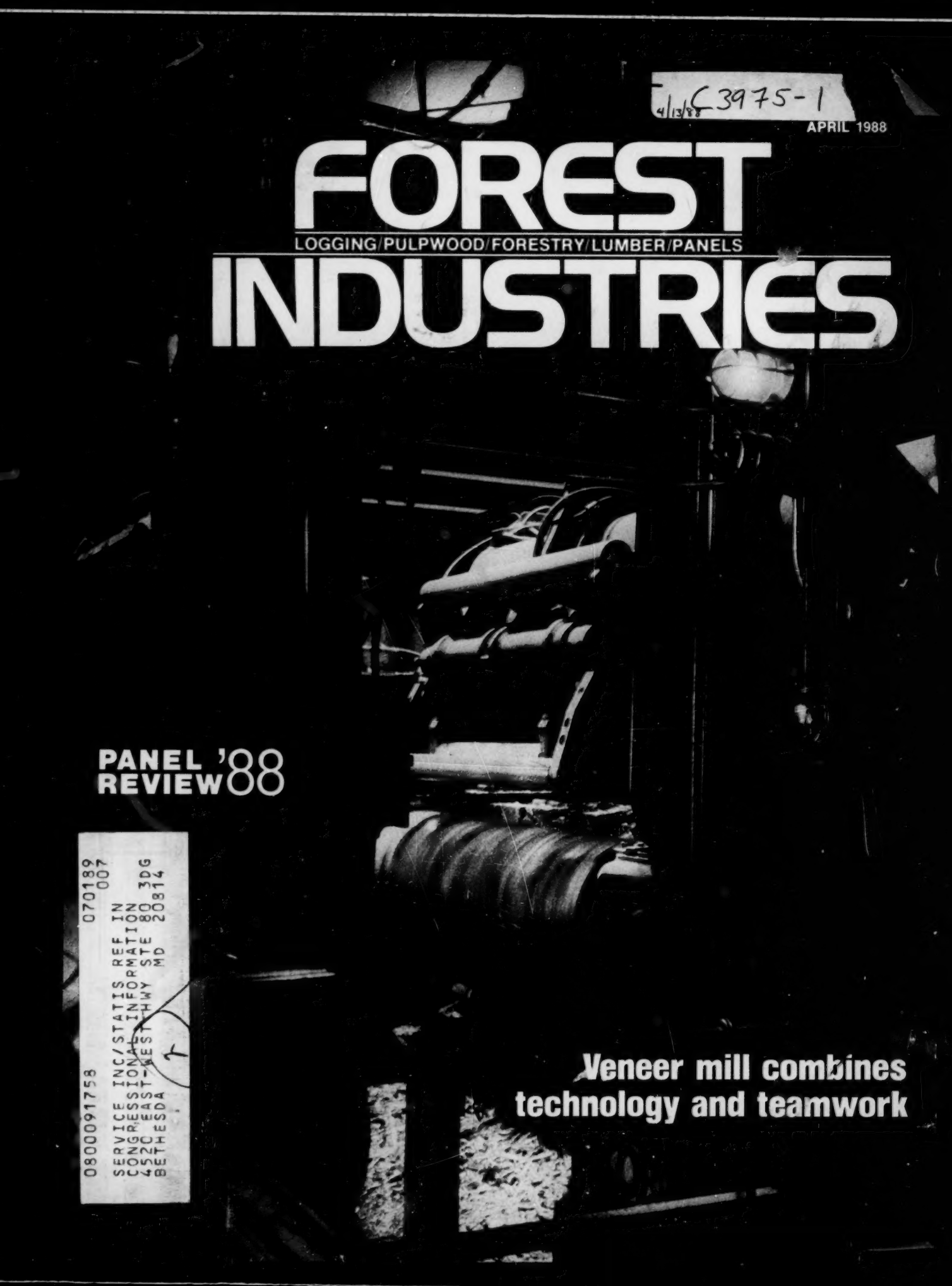

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Veneer mill combines technology and teamwork

1988 Volume 115 Number 4

APRIL

Wood-Based Panel Review

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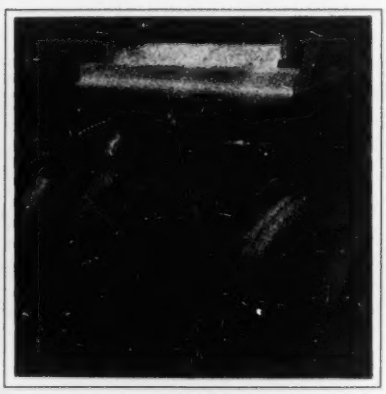

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Records are made to be broken, they say. The North American wood-based panel industry, and its customers, agreed in 1987. Increased export business accompanied strong domestic demand

Booming panel industry shatters output records

San Francisco, California

Record production levels characterized virtually all segments of the wood-based panel industry in the United States last year as strong export and non-housing markets more than offset slippage in residential construction.

Here are the figures, most of which are knowledgeable estimates pending final audits (also see table, below):

• Structural panels (including softwood plywood, oriented strand board and waferboard)—record output estimated at 27.3 billion ft² (⅜-in. basis), 88.2% of capacity. This is 6.5% above 1986 production, then a record. The 1987 figure may go higher when numbers are crunched.

• Particleboard—the standing record for shipments, set in 1972, was eclipsed last year with a figure estimated at 3.762 billion ft² (¾-in. basis), 88.7% of capacity. This was a 4.4% gain over 1986.

• MDF—another record. Estimated shipments of 902 million ft² (¾-in. basis) in 1987 were 15.5% above the previous year's level and 86.1% of capacity. MDF shipments have risen sharply every year since a severe dip to 448 million ft³ in the recession year of 1982.

• Hardboard—this segment has been laboring under the influence of a downward trend which, despite a spike in 1983, has possessed it for the past decade. Shipments in 1987 totaled 5.457 million ft² (⅛-in. basis), 6.3% below the previous year.

Figures above came from the major trade associations: American Plywood Assn., National Particleboard Assn. and American Hardboard Assn.

Canadian panel production was up in all categories last year (see sidebar, opposite page).

Structural panels

The combined production total for softwood plywood, waferboard and OSB represented the fifth consecutive annual production record for this element of the industry.

Each of the main production segments—plywood and non-veneer panels—achieved new records as well. Plywood alone accounted for 23.3 billion ft², while the newer kids on the block reached nearly 4 billion ft².

Comparable 1986 figures were 22.1 billion ft² for softwood plywood and 3.3 billion ft² for waferboard and OSB.

The most recent assessments by APA point to "an excellent prospect" of structural panel demand remaining at about the same level in 1988, despite slower housing activity. APA predicts housing starts this year at 1.55 million units, compared with 1.62 million in 1987.

Non-residential construction is also likely to soften slightly, but continued expansion in home repair and remodeling, industrial markets and export sales is foreseen by the association.

It was the booming export market that helped lift structural panel production in 1987. Offshore panel shipments reached a record 795.5 million ft². The previous export record was 790.8 million ft², set in 1975. (The 1975 figure was boosted by 394 million ft² shipped to Canada to offset production lost to a strike among B.C. mills.)

APA predictions call for export shipments to reach 1 billion ft² in 1988.

According to Tom Fast, APA international operations director, European markets improved dramatically in 1987.

Shipments to the United Kingdom, the U.S. industry's largest single market, jumped 110% over 1986; the Bel-

U.S. Panel Production, 1977-1987

(thousand ft²)

Year	Structural panels (⅜-in. basis)	Particleboard[1] (¾-in. basis)	Hardboard[1] (⅛-in. basis)	MDF[1] (¾-in. basis)
1977	19,376,000	3,592,910	7,200,000	441,354
1978	19,964,000	3,720,369	7,800,000	508,416
1979	19,653,000	3,376,488	7,687,798	506,728
1980	16,488,000	2,949,897	6,140,000	493,140
1981	17,023,000	2,869,352	6,104,000	516,102
1982	16,402,554	2,393,066	5,586,918	446,157
1983	20,821,342	2,919,544	7,302,702	605,098
1984	21,967,917	3,195,586	6,837,118	634,974
1985	22,838,170	3,330,517	6,300,146	384,593
1986	25,632,830	3,602,757	5,822,328	780,598
1987	27,300,000[2]	3,762,586[2]	5,457,508	901,650[2]

[1] Shipments; [2] Estimated.

gium and Luxembourg market received 46% more plywood last year than the year before; and the recently developed Italian market recorded a gain of 114% over 1986, Fast said.

Japan is still a small market for U.S. softwood plywood, but even so, shipments in 1987 totaling just over 12 million ft² represented an increase of 42% over 1986.

Other reconstituted panels

Particleboard capacity in the United States at the end of 1987 was 4.242 billion ft² (¾-in. basis) annually, according to a National Particleboard Assn. survey. This figure should rise to 4.282 billion ft² in 1988 with completion of the Georgia-Pacific Corp. plant at Gaylord, Mich.

Future capacity increases scheduled are Allegheny Particleboard Corp., Mt. Jewett, Pa., 186 million ft², early 1989, and Masonite Corp., Waverly, Va., 100 million ft², early 1990.

MDF capacity as of Jan. 1, 1988 stood at 1.047 billion ft² (¾-in. basis), according to the NPA survey. By the end of the year, this figure should increase to 1.218 million ft² with completion of four projects: Georgia-Pacific Corp., Holly Hill, S.C., 19 million ft²; Louisiana-Pacific Corp., Eufaula, Ala., and Urania, La., each 50 million ft²; and Weyerhaeuser Co., Broken Bow, Okla., 52 million ft².

On target for completion in late 1989 is the Reincorp International Inc. plant in Washington County, Ala., 100 million ft².

Hardboard shipments in 1988 should continue at a level approximately equal to last year's figure, according to the American Hardboard Assn.

The big gainers

Two product categories leap out of the statistics in terms of growth within the past decade.

By APA figures, in 1980 there were five waferboard/OSB mills in the United States producing 196 million ft² (¾-in. basis), 44% of waferboard/OSB capacity and 1% of total structural panel capacity. In 1986, there were 24 mills producing 3.545 billion ft², 82% of waferboard/OSB capacity and 12% of total structural panel capacity.

Add three mills and about 400 million ft² in 1987. Final production totals should represent about 82% of waferboard/OSB capacity and remain at 12% of total structural panel capacity.

MDF has been around a little longer, but not much. Shipments since 1977 have increased 104.2%. ■

Strong housing helps boost Canadian production

VANCOUVER, B.C.—Wood-based panel production in Canada moved up sharply in 1987, a year after softwood plywood production in British Columbia was depressed due to a lengthy strike.

Plywood output in B.C. leaped 23.7% above 1986, while nationwide production figures for softwood plywood, waferboard (including OSB) and particleboard focused narrowly on 19% as a measurement of gain in 1987 over 1986.

Shipment volumes nationwide ran a little behind production, but for products above were between 17% and 18% ahead of 1986. Hardboard shipments were up by 2.6%.

Statistics Canada reported these figures for 1987 (1986 in parentheses):

- Softwood plywood—production in 1987 was 2,229,000 m³ (1,876,896 m³), up 18.8%; shipments were 2,222,979 m³ (1,887,557 m³), up 17.8%.
- Waferboard—output last year was 1,607,171 m³ (1,347,638 m³), up 19.3%; shipments amounted to 1,589,385 m³ (1,355,587 m³), up 17.2%.
- Particleboard—production in 1987 totaled 1,355,107 m³ (1,139,253 m³), up 18.9%; shipments were 1,309,762 m³ (1,115,095 m³), up 17.5%.
- Hardboard—last year's production reached 138,757 m³ (1986 not reported); shipments were figured at 139,163 m³ (135,650 m³), up 2.6%.

British Columbia softwood plywood mills produced 2.144 billion ft² (⅜-in. basis) last year, according to the Council of Forest Industries of B.C., representing 80% of all Canadian plywood.

The B.C. figure marked the highest production level since 1980 and was a 33% increase over 1982, the industry's low point during the recession.

Markets in Canada received most B.C. softwood plywood. Canadian housing starts were up substantially in 1987 and were described by COFI as "a key component in the renewed vitality of the plywood industry."

Exports, at 266.7 million ft², were down 6% from 1986 as a result. The biggest reduction came in shipments to EC markets. However, shipments to Japan were up substantially.

Japanese customers have responded favorably to B.C.'s Quality Certified COFI Exterior plywood, noted a COFI spokesperson. In 1987, COFI was the first foreign testing organization to be authorized to certify wood products to JAS standards. Required performance markings can be applied at the mills, eliminating costly reinspections otherwise required in Japan.

The Japanese approval adds to the international recognition of COFI certified plywood, which achieved similar DIN status in Germany in 1985. It also reflects favorably on the work conducted at the COFI Technical Centre, according to the organization.

B.C. plywood mills have been engaged in a substantial amount of modernizing and retrofitting, driven by the booming market and, according to some sources, by higher stumpage costs which encourage improved recovery.

From the product side, COFI's plywood affiliates are becoming more customer-driven and tailoring products to suit specific market requirements.

COFI Exterior plywoods for concrete form, heavy-duty plywood floor systems with non-skid coated surfaces, and a new roof panel are some of the specialty products developed by B.C. producers. The new roof panels were developed at the COFI Technical Centre.

"Product refinement and new product development are helping our manufacturers keep their competitive edge," remarked Art Kempthorne, COFI's director of technical services. "There's no denying we have been facing tough competition in recent years from other panel products but we're in fighting trim and more than ready to defend and expand our markets."

COFI has been defending the interests of B.C. producers in matters pertaining to the Canada-U.S. Free Trade Agreement, and its impact on plywood trade is under review.

"We don't foresee any major shifts in the immediate future as tariff reductions will be phased in over 10 years," Kempthorne said. "We are disappointed that the agreement will continue to give U.S. producers a tariff advantage, currently 5%, throughout the 10-year period. The question of harmonizing standards will also have to be addressed and we hope it can be done on a sound technical basis, through established procedures in both countries.

Canadian particleboard manufacturers have capital projects on the books that will increase capacity by 20% in 1988 and 1989. Four Canadian Particleboard Assn. members have installed surface laminating lines, with emphasis on melamine-impregnated paper overlays, and completion of another melamine overlay line is expected in 1988. ■

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SAN FRANCISCO, CALIFORNIA 94105
500 Howard St., (415) 397-1881
Telex: 278273 Cable: Milfreepub
Leigh M. Freeman, Publishing Director
Leonard E. Haas, Group Publisher
Wini D. Ragus, Director of Circulation
Andrew A. Mickus, Director of Production
Kim L. Fleischauer, Ad Production Coordinator

REGIONAL SALES OFFICES

SAN FRANCISCO, CALIFORNIA 94105
500 Howard St.
(415) 397-1881
Telex: 278273 Fax: 415-543-0256
William Little, Western Sales Manager
Jan Curcio, Sales Assistant

CHICAGO, ILLINOIS 60601
35 E. Wacker Dr., (312) 372-6238
Bernice Betnel, Sales Assistant

ATLANTA, GEORGIA 30339
2700 Cumberland Parkway, N.W. Suite 690
(404) 432-3186
Jay E. Schlosser, Southern Sales Manager
Mary Anne Thompson, Sales Assistant

LONDON, ENGLAND
Lansdowne Media Services Ltd.
Lansdowne House, 12 Church St.
Rickmansworth, Hertfordshire, UK WD3 1BS
Telephone: 0923-777711
Telex: 28764 LMS LTD G
Fax: 44-9-23721103
David M. Lansdowne
Christina Burrows, Sales Assistant

B-1180 BRUSSELS, BELGIUM
BWB Media Services
198 Avenue Winston Churchill, Boîte 4
Telephone: 347-31-35
Telex: 63546 BWB B Fax: 32-2-3473206
Brian W. Bussey

B-1000 BRUSSELS, BELGIUM
Baudry Boisseau Associates
Rue J. Lebeau, 27
Telephone: 513-06-47 513-17-32
Telex: 62775 BBA Fax: 32-2-5141738
Baudry C. Boisseau

D-4630 BOCHUM 6, FED. REP. GERMANY
Postfach 600 264
Telephone: 2327-88609 Telex: 820468 EDH
Ernst Dieter Hartmann

TOKYO, JAPAN
Orient Echo Inc.
1101 Grand Maison Shimomiyabi-cho 8
Shinjuku-ku, Tokyo 162, Japan
Telephone: (03) 235-5961 Telex: J33376
Masahiko Yoshikawa

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JUNE 1988

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Loader swings logs to road in series of 80-foot arcs

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INDUSTRY NEWS

Interest rates: a nudge here and a tickle there

WASHINGTON, D.C.—Economic storm clouds were gathering on the horizon at press time. Whether they represent a brief spring squall or a serious rainy season is yet to be seen.

In early May, the Federal Reserve apparently made some adjustments to the big money machine, causing a ripple of fear that credit would be tightened. This bumped a key banking interest rate slightly, and occurred just after economists at a housing conference in Washington suggested home mortgage interest rates would rise significantly by the end of the year.

The Fed is expected to keep a light hand on the reins, however, both because this is an election year and because a discount rate increase last September shared some of the blame for the October stock market collapse.

Bond dealers detected Federal Reserve action May 9 when the central bank put fewer reserves into the banking system than were expected. This moved the sensitive federal funds rate, which banks charge one another for overnight cash reserves, beyond 7% from a previous 6.75%.

This in turn opened the possibility that the prime rate could rise a quarter of one percent to 8.75%, according to some observers.

An annual conference conducted by the National Assn. of Home Builders produced a near-consensus that interest on 30-year, fixed-rate mortgages would reach 11% by the end of the year. David Seiders, NAHB chief economist, put the figure at 11.5%.

Since early spring, mortgage rates have risen from 9.5% to almost 10.5% nationally.

Projections of housing starts for the year remain clustered around 1.50 to 1.55 million, with a booming business in single-family dwellings offsetting a soft multi-family market.

Meanwhile, U.S. Commerce Department figures show housing starts inched upward 1.9% in March to a seasonally adjusted annual rate of 1,543,000.

The February rate was revised upward to 1,514,000.

The March figure was 10.4% lower than the rate in March 1987.

Single-family starts increased 7.1% in March; multi-family units dropped 12.2%, both on an annual rate basis.

The annual rate for building permits issued in March was 1,452,000, up 2.1% from February. ■

MILL PROJECTS

Improved board surface suitable for overlays

VAL D'OR, QUE.—The Forpan Inc. particleboard plant will undergo a C$20-million modernization which will begin this year. The announcement came from Rudolf Kunz, president and CEO of the West Germany-based Kunz Group, majority owners of Forpan's parent company, Uniboard Canada.

Process changes will improve surface characteristics of the board to make it an attractive substrate for the new generation of film overlay materials.

Chapleau sawmill to grow

Chapleau Forest Products Ltd., Chapleau, Ont., is the beneficiary of a C$16-million modernization and expansion investment by its parent company, Green Forest Lumber Corp. of Toronto. The project, involving the sawmill and planing mill, will start this summer and is targeted for completion by April 1989.

Grondin mill to rebuild

The Irenee Grondin et Fils Ltée white pine sawmill at St. Zacharie de Beauce, Que., destroyed by fire last year, will be rebuilt at an estimated cost of C$1.9 million. ■

QUARTERLY REPORTS

Pulp, paper strength pulls earnings upward

SAN FRANCISCO, CALIF.—Strong markets for pulp and paper products carried integrated forest products corporations through a healthy first quarter, with financial reports showing strong gains in sales and earnings.

The solid-wood story had less to recommend it. Where identified separately, most building material operations were down from first-quarter 1987—some a little, some a lot.

Of course, for every rule, there's an exception. Moving against this trend, Louisiana-Pacific Corp. building products sales for the quarter were up 13% to $401.6 million and operating profit was up 9% to $41.8 million, contributing to the company's best first quarter on record.

Potlatch Corp. wood products group earnings of $0.7 million represented a drop of 89% from the comparable quarter's income last year of $6.3 million. Chairman and CEO Richard B. Madden attributed the decrease to startup

expenses at a new sawmill in Lewiston, Idaho, reduced lumber shipments and lower income from the company's *Oxboard* oriented strand board.

Once startup costs are absorbed, the efficient new sawmill should start generating profits, Madden said.

WTD Industries recorded a sharp drop in earnings for the quarter, compared with first-quarter 1987, despite a 66% gain in sales.

This drop was due largely to a temporary shortage of logs at several locations coupled with high log prices, explained president Bruce L. Engel.

The combination of forest closures last fall due to fire and extreme ice and snow conditions in December and January is unlikely to repeat itself, Engel declared.

Temple-Inland Inc.'s building products operations earned $7.1 million in the first quarter, against $9.6 million in the same period a year ago. This drop of 26% was centered in products depending on residential construction.

Products with non-residential uses, such as particleboard for furniture and cabinet markets and lumber supplied to the treating industry, continued strong, according to president and CEO Clifford J. Grum.

Georgia-Pacific Corp. building products profits dropped 9.2% from $119 million in first-quarter 1987 to $108 million this year. Chairman and CEO T. Marshall Hahn Jr. attributed the decline "in part to a fall-off in demand for gypsum products and to the effect of bad weather on housing starts. Good demand from home improvement and industrial markets, however, lessened the impact of the drop in housing," Hahn said.

While Boise Cascade Corp. was setting a new net income record in the first quarter, its building products segment was stalled in a holding pattern. Sales, at $225.6 million, were down 7% and earnings of $21.4 million were close to flat at a 1.8% drop.

"Despite a drop in housing starts from year-ago levels, the performance of this business continues to be aided by robust repair-and-remodel and international markets," noted chairman and CEO John B. Fery.

Willamette Industries Inc.'s report noted that building materials profits were "substantially lower" than last time, but "are showing unexpected strength in the face of pessimistic housing forecasts." ■

U.S., Canadian forest industry results, first quarter 1988 ($ millions)

Company	Sales	% change 1988/87	Earnings[1]	% change 1988/87
Abitibi-Price	C800.0	15.0	C44.1	101.4
Boise Cascade Corp.	1,016.3	11.4	66.5	70.7
B.C. Forest Products	C356.0	6.0	C45.4	38.8
Canfor Corp.	C295.1	9.1	C29.0	40.1
Champion International	1,266.1	15.4	102.0	83.8
Chesapeake Corp.	161.3	3.8	9.9	133.9
Consolidated-Bathurst	C582.6	9.3	C53.1	60.9
Domtar Inc.	C673.0	11.4	C37.0	(15.9)
Federal Paper Board	245.5	6.8	21.9	100.6
Georgia-Pacific Corp.	2,115.0	14.0	106.0[2]	32.5
Great Lakes For. Prods.	C209.0	14.2	C33.5	70.4
Great Northern Nekoosa	843.9	46.9	78.3	80.6
International Paper Co.	2,300.0	27.8	159.0[3]	76.7
Louisiana-Pacific Corp.	483.0	14.2	30.6[4]	89.0
MacMillan Bloedel Ltd.	C796.5	10.7	C91.6	51.7
Noranda	C1,075.0	6.1	C62.9	49.1
Pope & Talbot Inc.	115.7	15.4	8.0	19.6
Potlatch Corp.	258.2	3.9	26.5	49.0
Scott Paper Co.	1,126.4	17.7	74.0	51.0
Stone Container Corp.	881.3	50.4	65.3	150.2
Temple-Inland Inc.	425.7	9.0	45.6	35.3
Union Camp Corp.	645.4	18.6	67.5	52.6
Weldwood of Canada Ltd.	C209.9	16.0	C15.5	20.6
West Fraser	C102.0	10.0	C11.1	(7.5)
Westvaco Corp. (1/31)	501.3	13.7	37.6	93.1
Weyerhaeuser Co.	1,855.5	14.7	114.2	12.0
Willamette Industries	404.8	25.3	40.4	76.0
WTD Industries (1/31)	60.3	66.1	0.2	(79.5)

1. Income after taxes from continuing operations, excluding most significant non-recurring items in both years. 2. 1987 quarter excluded $6-million pretax gain from liquidation of investments. 3. 1987 quarter includes $14-million pretax gain from sale of securities. 4. 1988 quarter excludes nonrecurring gains of $146 million from settlement of timberlands dispute and $15.7 million from sale of Container Products Division, Fibreboard Corp.

EAST MEETS WEST

CP merging companies into Canadian giant

MONTREAL, QUE.—Steps are being taken to merge Great Lakes Forest Products Ltd. and CIP Inc., forming a new company to be known as Canadian Pacific Forest Products Ltd.

CIP is a wholly owned subsidiary of Canadian Pacific Ltd., which also holds a 54.3% interest in Great Lakes. The merger has been approved by CP and CIP directors and by a committee of Great Lakes directors. The Great Lakes board and shareholders were scheduled to vote June 2. The new firm, owned 79.7% by Canadian Pacific, would be the second largest market pulp and newsprint producer in North America.

Solid-wood operations of both companies to be merged are smaller in scale: CIP produces about 250 million bd ft of lumber annually at sawmills in Ladysmith and Tahsis, B.C.; while Great Lakes produces about 130 million bd ft of lumber per year at Dryden and Thunder Bay, Ont.

Hardwood mills sold

Timber Products Co. L.P., Springfield, Ore., has purchased the Cliffs Forest Products Co. hardwood sawmill and veneer plant in Munising, Mich., from Cleveland-Cliffs Inc. This leaves Cleveland-Cliffs with 310,000 acres of timberlands on Michigan's Upper Peninsula which it will sell later.

Fletcher resting in B.C.

Fletcher Challenge Ltd. CEO Hugh Fletcher has said his company would not immediately seek to expand its ownership in British Columbia Forest Products Ltd. Fletcher Challenge holds a 69% stake in BCFP and 100% ownership of Crown Forest Industries Ltd. ■

Changing trade rules in the European Community should help improve the ability of North American wood products producers to serve the market

World timber markets reviewed at conference

London, England

The themes were familiar: economic trends; American economic policy; increased efficiency and value-added processing; changing supply sources; new rules and product standards.

But the location was London's Royal Garden Hotel, and the subject was world lumber markets in relation to the United Kingdom. At Timber Trading 88, the fifth in an annual series put on by *Timber Trade Journal*, some 190 people heard experts outline emerging trends for both softwoods and hardwoods.

By Lloyd C. Irland

TABLE 1—Manufacturing productivity growth output per worker, annual percentage increase

Nation	1964-73	1973-79	1979-87
United States	3.6	2.4	3.2
Japan	9.9	5.7	3.2
West Germany	5.7	4.2	2.1
United Kingdom	4.0	0.7	3.6

SOURCE: The Henley Centre for Forecasting

Considering North America's strong softwood export performance in 1987 and the improved orientation toward world trade that is beginning to be felt in the U.S. industry, the observations at this conference should be of wide interest.

A strong U.K. economy

Analyst Eric Salama of the Henley Centre for Forecasting offered an upbeat review of the recent performance of the economy in the United Kingdom.

He suggested that the U.K. is in better shape than it has been for 15 years, measured by developments in technology, investment, profits, and labor costs and productivity. He noted that the U.K. depends more heavily on exports than does Japan. As one example, manufacturing productivity growth has improved significantly in the U.K. in recent years, leading other major industrial nations (Table 1).

The Thatcher government's supply-side policies and efforts to trim government spending and taxes were credited for much of this improvement.

Robert Erith of SCBI Savory Milln Ltd., predicted that for 1988 the British federal net borrowing requirement could be zero for the first time in years, even with a tax cut. He noted the U.K. has significantly increased its net asset position overseas during these years.

American policy

Salama noted that "the three Ds"—deficits, the dollar and debt—were the significant hazards to continued growth for the U.K.

The role of American policy, especially concerning the "Twin Deficits" in U.S. trade and federal finances, were major uncertainties: the resolution of those issues will affect the third one—the value of the dollar.

Salama said he hoped the U.S. would somehow muddle through these problems, as it has in the past. All concerned with foreign trade are watching U.S. policy on protectionism, as well as the campaign rhetoric of the various presidential candidates.

U.S. policy came in for a blasting from Adam Zimmerman, chairman of Noranda Forest Inc. Zimmerman described the U.S. softwood industry's trade actions against Canadian softwood as "well-planned and harmonized aggression."

He argued that "replacement" of the 15% export levy by stumpage increases would damage Canadian competitiveness in world markets and would before long have to be revised, because "you can't get blood out of a stone." He did suggest that there may be positive results if the U.S.-Canadian Trade pact is ratified, though it would lead to some restructuring.

U.K. timber market outlook

U.K. housing production has been at a high level in recent years, on a similar trend to the U.S. At the same time, government involvement in housing production declined significantly.

The repair, maintenance and improvement (RMI) market is very strong as homeownership rises and as buildings age. Given the extraordinary cost of housing in Britain, more emphasis on RMI is expected.

The market share of timber-frame housing has fallen steeply in recent years. For 1988, a modest decline in housing construction is expected, but RMI and non-residential construction are expected to maintain strength in timber demand.

Imports of softwood timber rose 9% in 1986, 7% in 1987, and are expected to remain stable in 1988. Import prices for softwood are expected to rise about 5% in 1988.

Erith noted that London has looked more favorably on timber stocks in recent years, in the wake of improved management, consolidations and strong construction demand. He said he expects the coming U.K. federal budget to contain further individual income tax cuts.

But, ominously for private forestry, Erith said he sees a possibility that income tax provisions favorable to forestry will be considered for reduction or elimination. Those provisions have been the subject of intense criticism from both financial experts and environmentalist groups.

In so many ways, events in the U.K. bear an eerie similarity to our recent American experience.

Excellence in management

A major theme of the conference was rationalization, quality and value-added—in short, modern excellence in management.

Patric Fredell of the Swedish Wood Exporters Assn. noted that sawmills in Finland and Sweden, losing money in recent years, have trimmed capacity and improved productivity. They are now emphasizing improved drying and supplying value-added components to their customers.

Zimmerman noted that Noranda achieved a 30% cut in conversion costs in 1982-85. Noranda is no longer "content to supply generic rough green" lumber. The company is boosting Research & Development outlays, believing that it is getting a 30% return on such expenditures.

Zimmerman pointed to MacMillan Bloedel's new reconstituted product, Parallam, as an example of a promising new technology.

The distribution system also was mentioned as a target for rationalization. Large shippers to Europe have been frustrated by what Zimmerman called "the arcane web of sales relationships."

There will undoubtedly be further rationalization in the marketing system as large shippers endeavor to get closer to customers and to sell value-added products in volume.

All the same, Fredell assured listeners that the Swedes, while they wish to upgrade product lines, have no wish to "sell down the line," going around traditional channels.

British buyers have been concerned about the declining quality due to smaller trees and more remote timber sources in their traditional supplying nations. Many dimensions of quality have given rise to concern, including defects due to improper drying, scantness and wane, and knottiness.

Clearly, selling on quality is becoming more important then ever before, in a market that is already demanding in its quality specifications. A quick glance at a Swedish softwood grading book will give an idea of what quality means in Europe.

Andrew Teare of the Rugby Group reviewed his company's experience in moving into wood products in the U.S. and the U.K. Rugby has established a major position in millwork distribution in the U.S.

He noted that Rugby has learned a number of lessons in the U.S. that are being applied to their own John Carr millwork manufacturing subsidiary in England.

"Growth for overseas suppliers in the U.K. will come from supplying manufacturers like ourselves with more and more specialized and specified components," he said.

"We shall build the products competitively and resist strongly import penetration by manufactured products," Teare noted.

Changing sources of supply

Supply sources traditionally relied upon in the U.K. and northern Europe are changing. Several years of losses have led to reductions in Finnish and Swedish sawmill capacity. Canada surpassed Sweden as a softwood supplier to the U.K. last year.

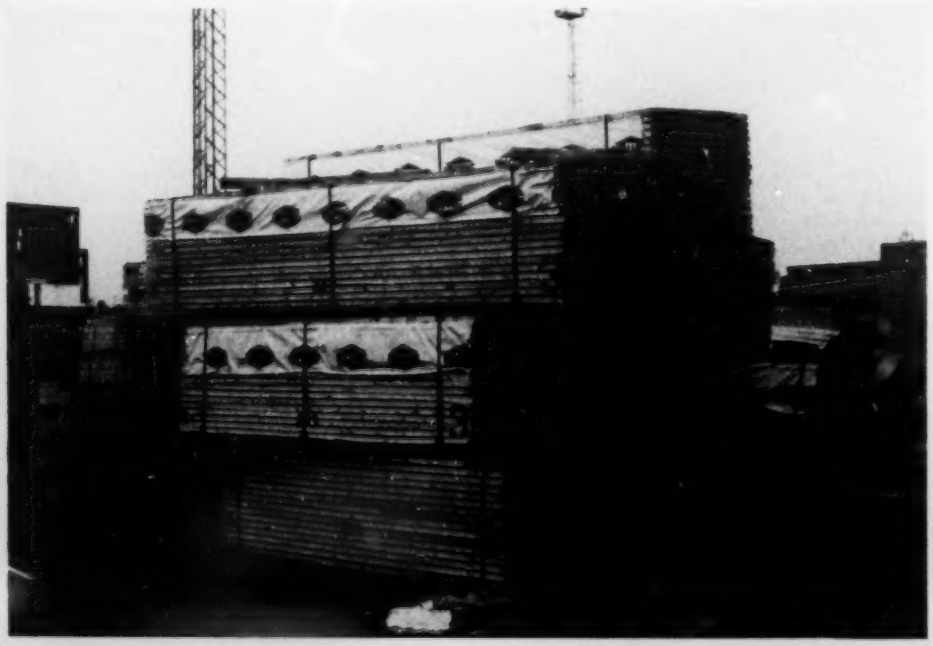
In Sweden and Finland, softwood growing stock volumes are increasing because landowners are not cutting the allowable cut, but a good deal less. This has triggered ferocious competition for timber and rising prices for logs, which are now 70% of production cost.

In some districts, paper mills are competing successfully for small sawlogs, which exacerbates the supply crunch.

The Scandinavian fiber gap that received so much press in the U.S. a decade ago has not materialized, but there has been an economic supply crunch instead. This probably accounts for the high level of interest in small landowner behavior in Scandinavian forest economics research.

An emerging source of U.K. supply is locally grown timber. Currently, the U.K. is only 16% self-sufficient in softwood sawnwood. But planting programs have produced a significant softwood resource, noted John Campbell, OBE, of the Economic Forestry Group. These plantations, which feature American conifers, are of a good age class distribution and are now yielding thinnings.

Production of softwood logs was only 2.5 million m^3 overbark in 1972, rose to



***Lumber** from North America, shown here being loaded at Tilbury docks, London. Photo courtesy of Vinland Wood Products.*

The emerging 'One Europe' has important and positive meaning for North American exporters, particularly of softwoods for construction markets. Nonetheless, Western Europe will continue to be a very competitive market

5.0 million m³ in 1987, and could reach 9 million m³ by 2002-2006. The Forestry Commission's plantings account for 80% of this amount. The increased local harvest would boost U.K. self-sufficiency in sawnwood to 29% by the year 2000. Self-sufficiency in newsprint is expected to grow from 0 in 1981 to 41% by 2000.

Principal end uses for locally grown softwoods are packaging, fencing, and mine timbers, which do not compete with imported softwood lumber. Recent years have seen new investments in sawmills, designed to improve dimensional tolerances, drying, and consumer service.

In addition, a significant increase occurred in waferboard and pulpwood markets, which is enabling an improvement in thinning regimes.

Finally, the U.K.'s principal source of tropical hardwoods, Southeast Asia, is changing dramatically. Supplies of traditionally valued hardwoods are dwindling due to cutting, land use change, and increased conservation reservations.

J. Michael Ginnings, a consultant based in Singapore, predicted that these supplies would virtually vanish by the end of the century. He observed that this fact has not been sufficiently well appreciated in the U.K. trade to date.

He also noted that many Southeast Asian governments are imposing local processing requirements to reduce log and rough lumber exports.

Ginnings expects the long-term market for Southeast Asian timber to shift to the People's Republic of China and the "Tigers"—rapidly growing nations like Singapore, Taiwan, Japan and South Korea.

The strong demand for timber and rising import prices have eroded the traditional conservatism of wood processors to some degree. There is a somewhat more open attitude toward new species.

For example, one agent is developing a market for lodgepole pine from B.C.; radiata pine from New Zealand is being promoted; and one major importer has begun stocking American oak and ash in just the past two years.

Changing rules

As ever, forest product trade will be affected by the changing rules of the game. Of greatest interest were two major European Community changes that are expected to take effect in the early 1990s.

First is a "One Europe" set of standards for sizes and grades that could substantially overcome a balkanized market of unnecessarily diverse standards. This was mentioned by several speakers as a powerful development. Also important will be a EC-wide harmonization of Value-Added Tax (VAT) provisions which could affect construction, investment and wood products demands.

These moves toward implementing postwar dreams of a single European market could provide the greatest scope for locally grown woods to contribute to future supplies. But they also will improve the ability of North American producers to serve the market.

Experts suggest that the U.K. market is likely to ban imports of green softwood lumber before long. This will require North American producers to meet U.K. standards of drying.

An EC tariff on planed wood hinders the U.S. and Canada in supplying surfaced lumber. But even within the existing rules, progress can be made.

Robert Kincaid of the U.S. softwood promotion office in London (a joint venture of the Southern Forest Products Assn. and Western Wood Products Assn.) reports that several major builders are now relying more heavily on ALS sizes in their softwood lumber buying.

Changing trade rules and stumpage charges in Canada will affect U.S./Canadian bilateral trade as well as their competiveness in Europe.

Implications for U.S. producers

From the conference and other conversations with trade participants, a few implications for U.S. producers can be drawn:

- North American hardwoods are familiar in the U.K. and are growing in popularity. They will have an edge as supplies of more familiar tropical woods dwindle. Users will more likely turn to familiar American species, rather than endure the difficulties of becoming accustomed to the "secondary" tropical species.
- The emerging "One Europe" has important and positive meaning for U.S. exporters, particularly of softwoods for construction markets. But One Europe also will benefit our competition. The Scandinavian, Russian and Eastern European suppliers are closer to the marketplace there and can be expected to move quickly to capitalize on opportunities. One Europe or not, Western Europe will continue to be a very tough market for U.S. softwoods.
- Eastern North America has an opportunity in softwoods, but only if its mills can overcome buyer concerns about reliability of supply and quality. Currently, U.K. buyers turn to the Northeast largely for green, unplaned, construction-grade timber. Will that region be able to compete in higher grades and in the value-added components described at the conference?
- Truss technology is highly sophisticated in Europe and the U.K. Southern pine producers have not failed to notice this, and are able to market their species' strength to an important niche where technical qualities are all-important.
- The high prices of West Coast specialty woods such as red cedar and of some hardwoods is selectively increasing the joinery makers' interest in softwoods. The times have never been brighter for capable specialty marketers.
- The Canadians are well established in the U.K. market; they know the opportunities, the market, and the competition well. In 1986, total U.S. softwood exports to the U.K. could have fit on a few large ships . . . for a rousing market share of 2%. Last year, with a booming domestic market, U.S. producers didn't need the business. But what about 1988, and 1998? ■

THE AUTHOR is president of The Irland Group, an Augusta, Maine, consulting firm, and president of Vinland Wood Products, a startup firm which is attempting to develop export markets for New England woods. Author of two books and 130 articles on forestry and natural resources, Irland is a registered professional forester in Maine and Faculty Associate at the College of Forest Resources, University of Maine at Orono.

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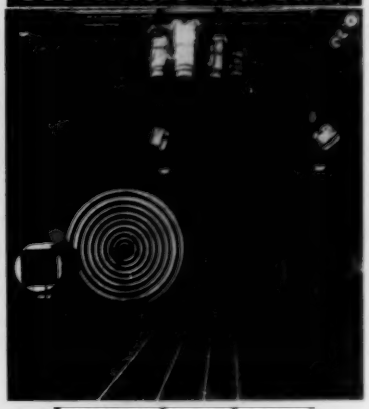

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Lumber output hit record highs in the U.S. and Canada in 1987. Increased domestic demand and booming exports kept prices up. Can lumber continue to stay this strong?

Annual survey ranks top lumber producers

By Mary Lou Corlett

San Francisco, California

Last year's strong economy, relatively high housing starts, booming export markets and high lumber prices resulted in another record year for North American lumber producers.

Output set a new high, the second in as many years. Combined U.S. and Canadian lumber production—hardwood and softwood—was 75.2 billion bd ft, up 9% from 1986's record output of 68.7 billion bd ft.

U.S. softwood production

According to figures from the National Forest Products Assn. (NFPA) softwood lumber production in the U.S. in 1987 was 37.9 billion bd ft, up 7% from 1986. Softwood lumber consumption climbed to 50.3 billion bd ft, up 6% from the year before.

Lumber demand in the U.S. has been at record levels for four years and is expected to stay strong. But although analysts are able to chart the record demand, they are not able to say precisely where it is going.

Housing starts, traditionally the most important variable of lumber consumption, dropped 10% in 1986, yet consumption continued to climb. A strong repair and remodeling market and record export levels reportedly offset the drop in housing starts.

Some analysts wonder if the statistics are correct. Ross Hay-Roe, editor of *Hay-Roe's PaperTree Letter*, has noted that "the estimates of how much lumber goes into repair and remodeling have been pushed to the limits of credibility in the last year or two. New construction seems to admit of more precision in estimating its lumber component, but only because the number of housing starts is taken as fact. But if housing starts have been declining since late 1986, how can lumber demand be increasing?"

He suggests one possible answer: "Maybe the housing-start figures are wrong."

Whatever the reasons, he writes, "the 'domestic disappearance' of lumber has never been so high."

Confusion about hardwood

Whatever mystery surrounds the softwood lumber figures, it is minimal compared to that surrounding hardwood statistics. Hardwood production and consumption figures have been completely—and significantly—revised upward in the past few months.

According to new figures from NFPA, hardwood lumber production was 11 billion bd ft in 1987, up 10% from the revised 1986 figure.

However, until recently NFPA was reporting '86 hardwood production at only 7 billion bd ft.

NFPA has revised all its figures to reflect new estimates of hardwood lumber production developed by the U.S. Forest Service.

Work undertaken about a year and a half ago by Bill Luppold and Gilbert Dempsey at the U.S.F.S. Northeastern Forest Experiment Station, Princeton, W.Va., was based on evidence that the widely used U.S. Department of Commerce production statistics were inaccurate.

Luppold and Dempsey developed new estimates of hardwood lumber production in the central and eastern U.S. from 1965 to 1986. (Very little hardwood lumber is produced outside of these regions.) Their estimates were based on Forest Service timber product output studies, state tax records, and state level sawmill surveys. They came up with figures indicating that hardwood lumber production was higher in 1986 than at any time during the last 20 years.

NFPA used the Forest Service figures to revise its hardwood production

TABLE 1—United States Lumber Production and

	Softwood Lumber Production, By Regions						
Year	Southern Pine	Western Coast	Inland Region	California Redwood	Other Softwood	Total Softwood Production	Total Softwood Consumption
1978	9.231	8.845	10.033	1.902	2.046	32.057	42.640
1979	9.283	8.427	9.780	1.818	2.124	31.432	40.608
1980	8.217	6.815	7.613	1.589	2.012	26.246	33.832
1981	8.415	6.270	7.147	1.452	1.392	24.676	32.064
1982	8.754	5.743	6.681	1.300	1.309	23.787	31.173
1983	10.181	7.934	8.488	1.580	1.543	29.726	39.742
1984	10.674	8.329	8.992	1.664	1.515	31.174	42.857
1985	10.730	8.062	9.276	1.730	1.523	31.321	44.243
1986	11.678	9.412	10.482	2.021	1.680	35.273	47.493
1987	12.437	10.191	11.274	2.202	1.806	37.910	50.299

Figures in recent years subject to revision. Numbers may not add to totals due to rounding.

and consumption figures from 1978 onward (Table 1).

Al Goetzl, NFPA's vice president of economics, explains that he developed 1987's hardwood production figure "based on an heroic assumption that production in '87 was 10% over that of 1986." The consumption figure is based on production plus imports, minus exports.

"We've known for some time that the hardwood statistics have been unreliable," Goetzl said. "The hardwood industry is so dispersed, with so many small operations, that it's extremely difficult to monitor."

The new, higher figures come as no surprise to George Barrett, owner of the *Weekly Hardwood Review* in Charlotte, N.C., and long-time observer of the hardwood sector. In fact, he doesn't think the new figures are high enough. "Hardwood lumber production was more than 12 billion bd ft in 1987," Barrett asserts, adding that in 1988 the sector will produce as much as 13 billion bd ft.

Based on the new figures, hardwood accounts for nearly a quarter of U.S. lumber production.

Forecasts for '88

What are the predictions for U.S. lumber producers in 1988?

With housing expected to remain soft, this should be a "challenging" year for U.S. lumber producers, says H. A. "Bob" Roberts, president of Western Wood Products Assn.

WWPA is projecting 1988 softwood lumber consumption at 49.2 billion bd ft, a drop of 2.2%. This projection is based on estimated housing starts in 1988 being at about the same level as in 1987.

Roberts predicts lumber exports in 1988 should creep above last year's levels of 2.4 billion bd ft, reaching 2.5 billion bd ft.

TABLE 2—Canadian Lumber Production Softwood and Hardwood, 1978-1987 (billion bd ft)

Year	B.C. Coast	B.C. Interior	Total B.C.	East of Rockies	Total Canada
1978	4.803	7.742	12.545	6.432	18.977
1979	4.657	7.861	12.518	6.480	18.998
1980	4.252	7.727	11.980	6.923	18.903
1981	3.458	6.966	10.424	6.473	16.897
1982	3.170	6.939	10.109	5.887	15.996
1983	4.140	8.903	13.043	7.486	20.529
1984	3.903	9.175	13.078	7.901	20.979
1985	3.996	10.007	14.003	8.952	22.955
1986	3.753	9.582	13.335	10.097	23.432
1987	4.674	11.214	15.888	10.385	26.273

Source: Statistics Canada

Canadian production up

In Canada, lumber production was a record 26.273 billion bd ft in 1987, up 12% from '86's level of 23.432 billion (Table 2).

British Columbia's production climbed to nearly 16 billion bd ft, up 19% from 1986, when a prolonged strike by the International Woodworkers of America (IWA) disrupted production for many companies.

There is some question about the effects of the 15% surcharge on Canadian softwood exports to the U.S., legislation which was formally implemented in May 1987.

Although statistics would indicate that the tax hasn't affected the sector much at all, many are warning of gloomier days ahead.

The Canadian Lumbermen's Assn. maintains that effects of the tax were masked in 1987 by unusually good lumber sales, attributed to low interest rates, the drop in the U.S. dollar and high levels of housing starts.

"Last year was a very good year," notes William Hatch, president of the association. "Even the industry was surprised."

At the association's annual meeting in early 1988, Hatch said that although 1987 was a record year, "1988 isn't going to measure up. There will be a pretty dramatic swing, with volume down perhaps 10 to 15%," he predicted.

M. H. Gunther, chairman of the Council of Forest Industries of British Columbia (COFI), notes that "the conversion of the 15% tax on lumber exports to the U.S. into higher provincial charges against the industry and dramatically increased reforestation and forest management costs have placed heavier burdens on B.C. forest companies. The arbitrary removal of timber harvesting rights also resulted in increased costs.

"The cumulative financial impact of these changes is enormous," he wrote in COFI's 1987 annual report. "Policy changes combined with the lumber export tax rolled into higher stumpage charges will cost the industry C$800 million in 1988, up from C$230 million in 1986."

Consumption, 1978-1987 (billion bd ft)

Total Hardwood Production	Total Hardwood Consumption	Total Lumber Production	Total Lumber Consumption
8.728	9.033	40.785	51.673
9.069	9.320	40.501	49.928
8.860	8.893	35.106	42.725
7.147	7.831	31.823	39.895
7.668	7.679	31.455	38.852
8.556	8.568	38.262	48.310
9.865	9.627	41.039	52.484
8.866	9.411	40.187	53.654
10.024	10.109	45.297	57.602
11.026	10.762	48.936	61.061

Source: National Forest Products Assn.

FI's annual survey

Gathering production figures from the leading lumber producers in North America is an annual rite of spring for the FOREST INDUSTRIES editorial staff. We mail questionnaires in March to lumber producers in the U.S. and Canada; a second questionnaire is sent out a few weeks later to non-respondents. Major producers (those producing more than 20 million bd ft) that fail to answer either mailing are contacted by telephone.

In this year's survey, we gathered 1987 production figures from 800 companies, representing more than 1450 mills. The production figures we have gathered account for 80% of all lumber produced in North America last year.

TABLE 3—Top 20 lumber producers, U.S. and Canada

(All lumber production figures given in 1000 bd ft)
(Companies ranked according to data received by FOREST INDUSTRIES)

Company, headquarters, & number of mills in 1987	Rank in 1986	'87 Hardwood	'87 Softwood	'87 Total	'86 Total
1. Weyerhaeuser Co. (32 mills) Tacoma, Wash.	1	165,000	2,974,000	3,139,000	2,568,000
2. Louisiana-Pacific Corp. (62) Portland, Ore.	2	12,000	2,628,000	2,640,000	2,529,000
3. Georgia-Pacific Corp. (41) Atlanta, Ga.	3	178,000	1,778,000	1,956,000	1,783,674
4. British Columbia Forest Products Ltd. (12) Vancouver, B.C.	8	0	1,346,385	1,346,385	959,201
5. Canfor Corp. (9) Vancouver, B.C.	5	0	1,203,900	1,203,900	989,600
6. West Fraser Mills Ltd. (6) Vancouver, B.C.	4	0	1,095,295	1,095,295	1,086,688
7. International Paper Co. (12) Dallas, Texas	7	0	1,081,804	1,081,804	817,904
8. MacMillan Bloedel Ltd. (10) Vancouver, B.C.	11	0	1,059,000	1,059,000	841,000
9. Boise Cascade Corp. (16) Boise, Idaho	10	23,304	896,517	919,821	843,548
10. WTD Industries Inc. (19) Portland, Ore.	15	33,900	863,200	897,100	549,170
11. Champion International Corp. (13) Stamford, Conn.	6	0	891,625	891,625	844,214
12. Sierra Pacific Industries (9) Redding, Calif.	12	0	890,000	890,000	722,000
13. Weldwood of Canada Ltd. (7) Vancouver, B.C.	9	0	818,000	818,000	678,000
14. Northwood Pulp & Timber Ltd. (5) Prince George, B.C.	22	0	741,028	741,028	461,695
15. RSG Forest Products Inc. (6) Kalama, Wash.	20	0	728,616	728,616	474,637
16. Westar Timber Ltd. (5) Vancouver, B.C.	13	0	653,000	653,000	640,626
17. International Forest Products Ltd. (7) Vancouver, B.C.	14	0	652,000	652,000	600,000
18. Roseburg Forest Products Co. (5) Roseburg, Ore.	18	0	600,000	600,000	500,000
19. Pope & Talbot Inc. (5) Portland, Ore.	21	0	596,087	596,087	462,011
20. Simpson Timber Co. (6) Shelton, Wash.	19	0	593,717	593,717	509,795

The entire list of 800 companies—ranked in order of production and, for the first time, with production figures mill-by-mill as well as corporate totals—will be included in the *1988-89 North American Factbook*, a completely revised reference book published by FOREST INDUSTRIES. The book will be available in September. (For details, see p. 40, or contact Corinne Shulman at 415/397-1881.)

Top 20 producers

Table 3 shows the top 20 North American lumber producers. Twelve are from the U.S., eight are from Canada. Collectively these giants produce 22.5 billion bd ft—30% of the total volume produced in the two countries.

There are no newcomers to this year's list. All of these companies have been on this list before—most of them several times. Only Northwood Pulp & Timber Ltd. and Pope & Talbot Inc. weren't part of last year's Top 20 (they were ranked 22nd and 21st last year, respectively).

A few notes on the leaders:

- Champion International Corp. figures do not include production of Weldwood of Canada Ltd., in which Champion holds a majority interest. However, figures from Weldwood (number 13 on our list) include production from its five wholly owned mills, plus two joint ventures (Babine Forest Products Co. and Houston Forest Products Co.).
- For those of you who don't recognize International Forest Products Ltd. in Vancouver, B.C., that's the new name for Whonnock Industries Ltd.
- Two of the fastest-growing lumber producers continued to grow in 1987: WTD Industries Inc. of Portland, Ore., and RSG Forest Products Inc. of Kalama, Wash. WTD was ranked 73rd in 1983, 55th in 1984, 31st in 1985, 15th in 1986 and now 10th in 1987. RSG moved from 35th place in 1985 to 20th in 1986 and is ranked 15th in this year's survey.
- There will be a new name on the list next year: Fletcher Challenge Canada Ltd. Five years after making its first move into North America, Fletcher Challenge Ltd. of New Zealand has become one of the largest lumber producers by merging its wholly owned Crown Forest Industries Ltd. and B.C. Forest Products Ltd., in which it holds a 69% stake. The new name is to be approved at a BCFP shareholders meeting Sept. 2. Crown Forest produced 463 million bd ft in 1987. ■

FOREST INDUSTRIES

Combining *The Timberman* and *The Lumberman*

PUBLISHING / SALES HEADQUARTERS
SAN FRANCISCO, CALIFORNIA 94105
500 Howard St., (415) 397-1881
Telex: 278273 Cable: Millfreepub
Leigh M. Freeman, Publishing Director
Leonard E. Haas, Group Publisher
Wini D. Ragus, Director of Circulation
Andrew A. Mickus, Director of Production
Gwen M. Kibbe, Ad Production Coordinator

REGIONAL SALES OFFICES
SAN FRANCISCO, CALIFORNIA 94105
500 Howard St.
(415) 397-1881
Telex: 278273 Fax: 415-543-0256
William Little, Western Sales Manager
Jan Curcio, Assistant Regional Sales Manager
Jennifer A. Carr, Sales/Editorial Secretary

CHICAGO, ILLINOIS 60601
35 E. Wacker Dr., (312) 372-6238
Bernice Bethel, Sales Assistant

ATLANTA, GEORGIA 30339
2700 Cumberland Parkway, N.W. Suite 530
(404) 432-3186
Jay E. Schlosser, Southern Sales Manager
Mary Anne Thompson, Sales Assistant

LONDON, ENGLAND
Lansdowne Media Services Ltd.
Landsdowne House, 12 Church St.
Rickmansworth, Hertfordshire, UK WD3 1BS
Telephone: 0923-777711
Telex: 28764 LMS LTD G Fax: 0923-721103
David M. Lansdowne
Christina Burrows, Sales Assistant

B-1180 BRUSSELS, BELGIUM
BWB Media Services
198 Avenue Winston Churchill, Boîte 4
Telephone: 347-31-35
Telex: 63546 BWB B Fax: 32-2-3473208
Brian W. Bussey

B-1000 BRUSSELS, BELGIUM
Baudry Boisseau Associates
Rue J. Lebeau, 27
Telephone: 513-06-47 513-17-32
Telex: 62775 BBA Fax: 32-2-5141738
Baudry C. Boisseau

D-4630 BOCHUM 6, FED. REP. GERMANY
Postfach 600 264
Telephone: 2327-88609 Telex: 820468 EDH
Fax: 2327-89257
Ernst Dietsr Hartmann

TOKYO, JAPAN
Orient Echo Inc.
1101 Grand Maison Shimomiyabi-cho 8
Shinjuku-ku, Tokyo 162, Japan
Telephone/Fax: (03) 235-5961 Telex: J33376
Masahiko Yoshikawa

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SEPTEMBER 1988

FOREST INDUSTRIES

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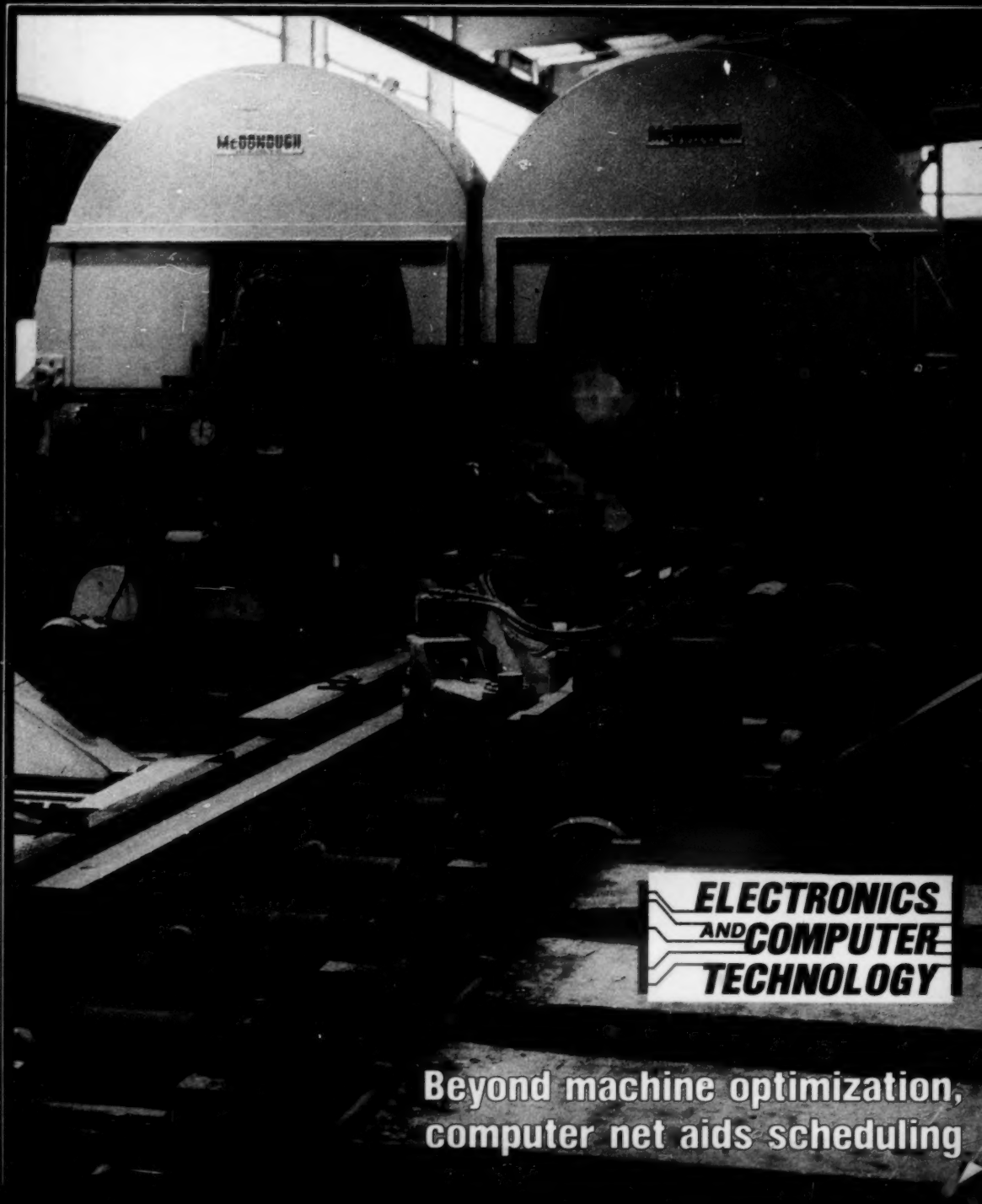

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CONVERSATION

Alliances change machinery scene

HAS ANYONE NOTICED what's happening in the heavy equipment business? Manufacturers based in Asia, Europe and North America are forming a variety of alliances aimed at streamlining an industry that has proven itself all too susceptible to economic swings in major markets.

The most recent move was formation of Komatsu Dresser Co. as a 50/50 joint venture by the two parent companies in its name. KD, with headquarters in Libertyville, Ill., is absorbing current Komatsu and Dresser Construction & Mining manufacturing operations in the United States, Canada and Brazil, plus marketing, distribution and parts operations.

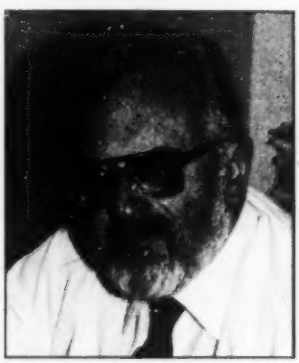
One of the first items of business will be investment of some $250 million in plant modernization, after which Komatsu models currently made in Japan will be built in the Western Hemisphere for this market. Beyond the machining centers, robotic welding equipment, tools and fixtures planned for the remodeled plants, KD makes a point of its pipeline to Komatsu's R&D works in Japan, which last year spent some $240 million on engineering, research and development. My own guess is that current parallel Komatsu and Dresser product names and distribution networks will eventually be merged once new products start coming off the Western Hemisphere assembly lines, no doubt a sensitive topic among dealers and employees.

A similar union occurred in 1985 when Clark Equipment Co. and AB Volvo merged their construction equipment operations into VME Group N.V., owned equally by the two companies. One of three main operating units worldwide is VME Americas Inc., based in Cleveland, which last year posted a 17% increase in sales. North America represented 35% of VME Group's worldwide sales last year and contributed enough Michigan wheel loader sales to boost worldwide market share in this category. The company introduced four new wheel loaders, added an articulated hauler model and updated seven of eight Ranger log skidder models.

There are other examples. FMC Corp. and Sumitomo Heavy Industries Ltd. are partners in Link-Belt Construction Equipment Co., a joint venture based in Lexington, Ky. Early this year, Deere & Co. and Hitachi Construction Machinery Co. Ltd. began steps to undertake a U.S.-based joint manufacturing and marketing venture for hydraulic excavators. Caterpillar Inc. is linked with Mitsubishi Heavy Industries in a manufacturing venture in Japan and sources worldwide markets from its own factories all over the map.

Consolidation of manufacturing and engineering resources in the interest of efficiency is not a bad thing. One hopes, however, that as these merged and/or jointly owned companies grow in size, product R&D for the forest products market is not shouldered aside by the numbers generated from the much larger dirt and rock-pushing industries.

Cat, Deere and VME have, to varying degrees, invested substantially in forestry R&D and specific products for the market. Others have left the job to dealers and OEM/aftermarket conversion specialists. There is room in the woods for both; however, it only takes a quick sample census in logging country to see the payoff awaiting dedicated forest products machines.



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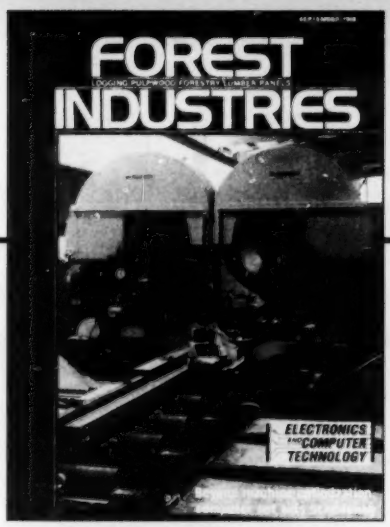

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Vice President/Group Publisher
Leigh M. Freeman:
Publishing Director

PUBLISHING OFFICE
500 Howard Street
San Francisco, Calif. 94105
Telephone: (415) 397-1881
Telex: 278273
Fax: (415) 543-0256
Cable: Millfreepub

REGIONAL EDITORIAL OFFICE
P.O. Box 849
Millbrook, Ala. 36054
Telephone: (205) 285-5499

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SEPTEMBER

Electronic Technology

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New dimension mill adds 'total process control'
Design of Union Camp Corp.'s new Franklin, Va., dimension mill aims at maximum flexibility to meet demands of changing markets. Optimization is applied to primary machines

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Positioners, scanners revitalize big headrigs
Modern scanning technology is not limited to high-output, small-log sawmills. In Bend, Ore., DAW Forest Products' 50-year-old pine mill uses electronic systems to help maximize grade recovery while maintaining speed

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Dual lines, optimization add to mill flexibility
Temple-Eastex Inc.'s new two-sided dimension mill in Buna, Texas, has been designed to allow for adding new process control technology as it is developed. High grade recovery is credited to QC program

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Compare mill options with desktop computer
Linear programming permits lumber and panel producers to fine-tune the product mix for maximum profit, helping in material allocation, scheduling and routing. Once a complicated process, now it can be done on a PC

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SINGLE STARTS STALL

Housing climbs slowly; interest rates eyed

WASHINGTON, D.C.—The home building market in July continued a slow upward movement. Housing starts were calculated by the U.S. Commerce Department at a seasonally adjusted annual rate of 1,489,000 units.

This start rate was a 2.4% improvement from the adjusted June rate of 1,454,000, but 6.6% below the rate for July 1987.

The starts rate this year bottomed out in May at 1,393,000 after a high point of 1,584,000 in April.

In the July mix, single-family units stalled out less than a percentage point below the previous month's rate, while multi-family units jumped 18.7%. The sudden increase in multi starts, after two months of downward movement, was attributed to a surge of backed-up permit approvals.

Building permits in July sagged 5.4% to a rate of 1,413,000 after a June increase of 4%. This was 6.4% below the July 1987 figure.

Rising interest rates continue to concern players in this market. National Assn. of Home Builders chief economist David Seiders said to look for fixed-rate mortgages to reach 11.5% by the end of this year and 12% by mid-1989. Rates in that area should continue to hold back an industry that currently is at part throttle, rather than create a crash, observers indicate.

Actual housing starts for this year through July totaled 877,600, down 10.6% from the comparable figure for 1987. ■

QUARTERLY REPORTS

Earnings increase, with boost from pulp sector

SAN FRANCISCO, CALIF.—As measured by financial performance of major corporations, the forest products economy remained strong in the second quarter. Among integrated companies, pulp and paper products continued to contribute most to this prosperity.

Earnings of International Paper Co., $188 million, were more than double the figure for the same quarter in 1987. Chairman and CEO John A. Georges attributed this to "continued strong demand for nearly all our products and the price increases we have realized on all our major product lines."

Boise Cascade Corp. quarterly earnings also more than doubled to a quarterly record of $72.2 million. Paper and paper products earnings were at record levels within that amount, while income from the company's building products segment fell below the comparable figure a year ago.

Georgia-Pacific Corp. chairman and CEO T. Marshall Hahn Jr. credited "generally favorable business conditions throughout the economy" with raising second-quarter sales to $2.42 billion. Earnings were down because a $37-million after-tax gain from the sale of interest in Georgia Gulf Corp. was credited to the earnings column in the second quarter a year ago. Operating profits for the pulp and paper segment were at record levels; for building products they fell to $120 million from $144 million.

Louisiana-Pacific Corp.'s pulp segment continued record performance in the second quarter. "We also benefited from lumber and panel price increases during the last two weeks of the quarter

U.S., Canadian forest industry results, second quarter 1988 ($ millions)

Company	Sales	% change 1988/87	Earnings[1]	% change 1988/87
Abitibi-Price	C835.5	10.5	C54.4	50.3
Boise Cascade Corp.	1,007.2	7.6	72.2	105.0
B.C. Forest Products	C393.3	14.3	C48.9	50.9
Canadian Pacific For. Prods.	C753.5	8.5	C74.3[2]	48.3
Champion International	1,262.4	8.7	112.2[3]	67.1
Chesapeake Corp.	184.7	5.5	11.9	67.1
Consolidated-Bathurst	C609.0	6.2	C59.9	38.3
Domtar Inc.	C646.0	(1.7)	C24.0	(45.5)
Federal Paper Board	248.2	3.0	28.8[4]	71.8
Georgia-Pacific Corp.	2,418.0	15.4	118.0[5]	(20.3)
Great Northern Nekoosa	856.9	49.0	85.3	90.0
International Paper Co.	2,400.0	26.3	188.0	108.9
Louisiana-Pacific Corp.	474.2	13.5	39.0[6]	18.2
MacMillan Bloedel Ltd.	C851.5	5.5	C94.5	26.7
Noranda Forest Inc.	C1,181.0	7.2	C71.0	31.5
Normick Perron Inc.	C50.5	21.1	C0.8	(73.3)
Pope & Talbot Inc.	122.0	14.7	6.9	(4.9)
Potlatch Corp.	266.8	9.4	24.5	10.0
Stone Container Corp.	858.7	3.3	78.1	140.3
Temple-Inland Inc.	448.5	13.5	53.1	48.3
Union Camp Corp.	660.1	11.8	74.1	54.9
Weldwood of Canada Ltd.	C237.5	25.0	C20.3	77.5
West Fraser Mills Ltd.	C123.4	10.8	C13.7	15.1
Westvaco Corp. (4/30)	533.3	15.6	45.2	55.1
Weyerhaeuser Co.	2,094.7	18.4	150.6	68.8
Willamette Industries	424.6	20.5	42.3	52.4
WTD Industries (4/30)[7]	79.8	39.5	2.3	28.3

1. Income after taxes from continuing operations, excluding most significant non-recurring items in both years. 2. Results include those of Great Lakes Forest Products Ltd. and CIP Inc., which merged to form Canadian Pacific Forest Products in second quarter 1988. 3. 1987 quarter excludes pretax gains related to sale of the company's investments in Stone Container Corp. and U.S. Plywood Corp. and adjustment of a reserve. 4. 1987 quarter earnings exclude $8.2-million charge from premium on retirement of debt. 5. 1987 quarter earnings include pretax gain of $60 million from liquidation of investments. 6. Results restated to show Fibreboard Corp. as a discontinued operation. 7. Fourth quarter results of fiscal year.

that resulted from labor disruptions at many western mills," reported chairman and president Harry A. Merlo.

Willamette Industries found higher prices attainable at southern and eastern operations helped offset "the minor impact of the strike on quarterly earnings," said president and CEO William Swindells.

Temple-Inland Inc.'s building products group earnings were down from a year ago, $9.1 million versus $10.7 million, but showed improvement over the first quarter.

WTD Industries Inc., whose products are wholly within the solid-wood sector, reported its second-best quarter ever in the three-month period ending April 30. This was the fourth quarter of WTD's fiscal year, which ended with sales up 66% to $293.7 million and earnings up 78% to a record $8.4 million. This was the sixth consecutive year of record sales and earnings for the fast-growing company, which now has 25 mills in four states. ■

CHARTING NEW OWNERS

Timberland purchased, small mills change hands

SAN FRANCISCO, CALIF.—Hard news about corporate transactions this month concentrates on timberland purchases and small mills.

Potlatch expands timber base

Potlatch Corp. has purchased 65,000 acres of timberland in northern Minnesota which formerly belonged to Diamond International Corp.

The purchase, stocked largely with aspen, brings Potlatch's Minnesota forest holdings to 331,000 acres. Wood will supply two oriented strand board plants, one of which is being doubled in size through a current $36-million undertaking, and a premium printing papers mill.

Noranda buys Maine resources

August closing was expected for purchase of former Diamond International timber holdings in Maine by Noranda Forest Inc. The 235,000 acres of timberland will assure timber supply for Fraser Inc. paper mills in New Brunswick and Maine, it was said.

WTD adds Washington stud mill

WTD Industries Inc. has formed a subsidiary, Orient Lumber Co., to purchase a stud mill in Orient, Wash., from Capital Development Co. Annual capacity is 50 million bd ft.

G-P purchases planing mill

Georgia-Pacific Corp. has bought a 25 million bd ft/year planing mill in Suffolk, Va., from Ramsey Lumber Co. Rough, dry southern pine lumber from G-P sawmills in Wakefield and McKenney, Va., and Ahoskie, Creedmore and Dudley, N.C., will be shipped to the Virginia facility.

Fibreboard buying mystery mills

Fibreboard Corp. has announced it is in the process of acquiring a privately held company with sawmill and reman-

LETTERS

Acknowledging log scalers, radio choker inventor

Scaling inferences termed 'unfair'

I recently read a back issue of FOREST INDUSTRIES and was dismayed to find an article (February 1988, pp. 18-21) that does a disservice to log scalers.

In an otherwise interesting article about cost analysis, there are two references that are unfair to scalers:

"It is often said, only half in jest, that the logging price is not as important as how the logs are measured and who the scaler works for."

"Cruisers know even less about trees than log scalers know about logs."

I think these statements are really low blows.

Speaking for myself as a second-generation scaler (not only is my father a scaler, but my uncle and his two sons are scalers, as are two other cousins), I've been taught by people that have been in the field for 30 years or longer, and those people have taught me well.

I believe that most scalers do an accurate job. They try to do their best under a wide range of conditions—weather, flow of logs coming in, not enough help, etc.

I just want to set the record straight.

Ralph Mendenhall Jr.
Log scaler
Pacific Log Scaling and Grading Bureau
Portland, Ore.

(The authors of the article on logging cost appraisals, both forestry professionals, may have overstated their case. It looked like their point was made to illustrate the difficulties scalers and cruisers face in quantifying variables, rather than to take a swipe at any occupational group. In any event, we're sorry you were offended, but glad you responded—Ed.)

Giving credit where it's due

I was flattered by the credit given me in your August issue (p. 38) for the invention of the radio-controlled choker.

However, Dennis Vaders is the original inventor and patent holder. My patent only covers an improvement to the geometry of the body.

As project engineer after Dennis, I know that more than a dozen people in R&D, harvesting operations, and licensee Johnson Industries Ltd. have made significant contributions to the development of the radio-controlled choker, but without Dennis, there may never have been one to develop.

John S. Selby, P.E.
Design Engineer/Project Leader
Lumber and Raw Materials R&E
Weyerhaeuser Co.
Tacoma, Wash.

(The attribution, and the invention scenario, came from a Weyerhaeuser Co. news release—Ed.)

Care and feeding of authors

Thanks again for the excellent presentation of our article in the July issue (*How to maintain linear positioners*, pp. 30-31.) Please express our thanks to the individual who did the typesetting and layout work.

We have received some very positive feedback from a variety of sources around the country.

It is always a pleasure working with you. Our business has doubled in 1988. The exposure our company has received through FOREST INDUSTRIES has certainly been a major contributor to the increase in business.

Carl A. Smiley Sr.
Carl A. Smiley Jr.
Southern Maintenance Consulting Services
Covington, Ga.

(Staff editors, like log scalers, are often underappreciated. Thanks.—Ed.)